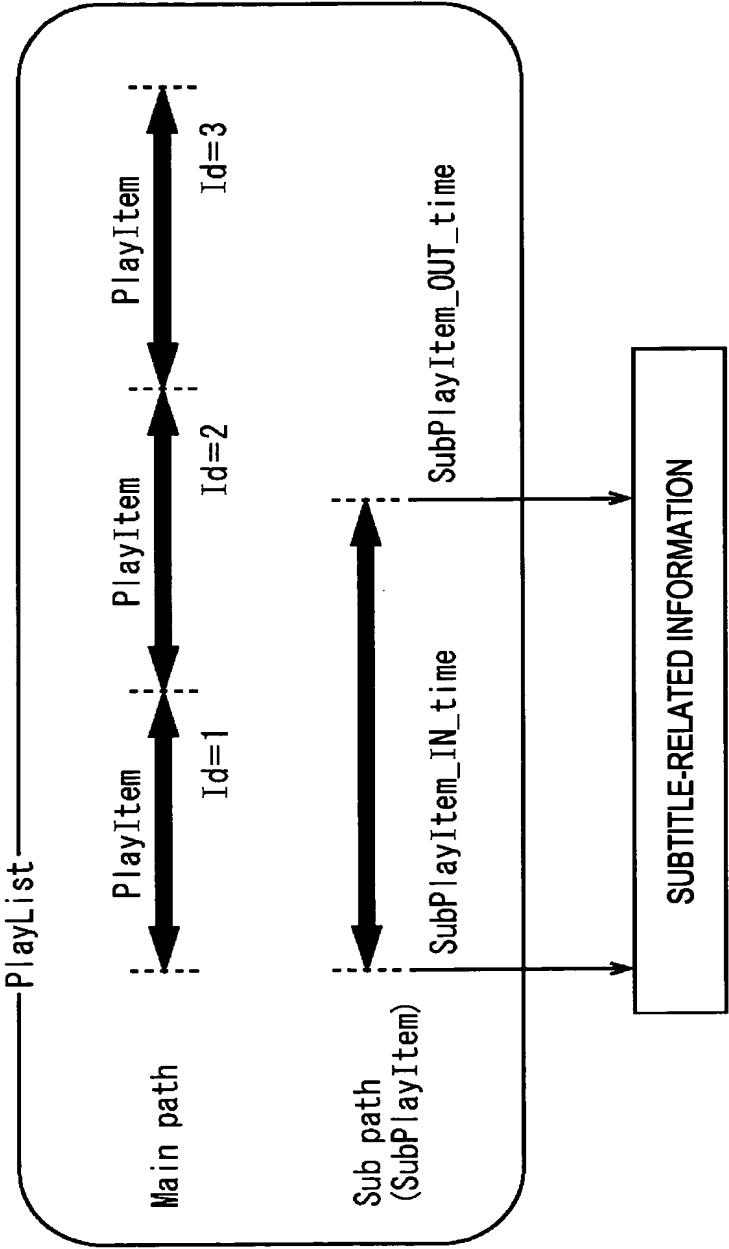


FIG. 3



4/70

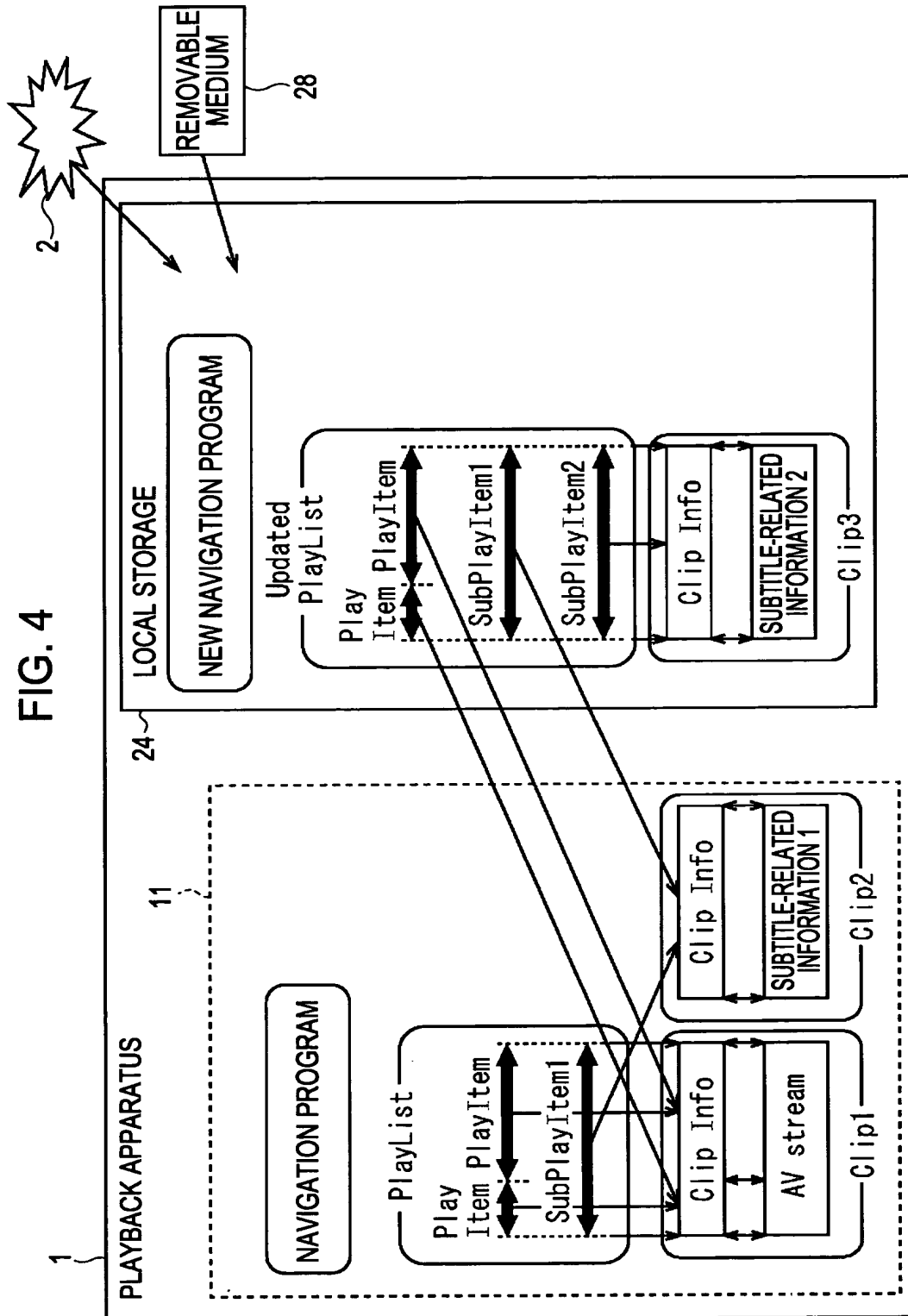
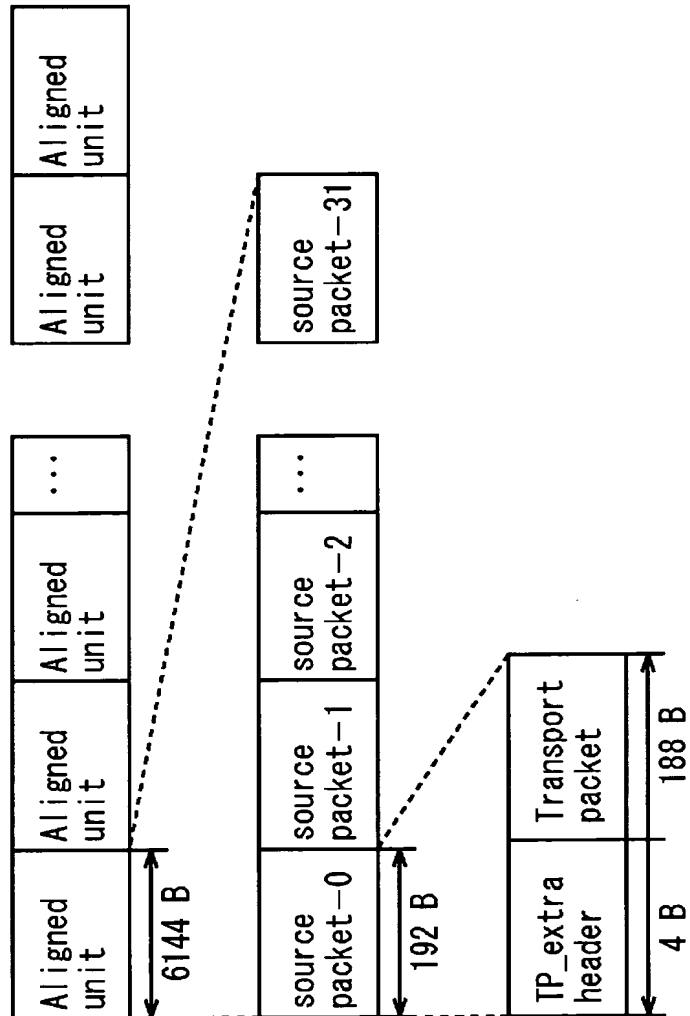
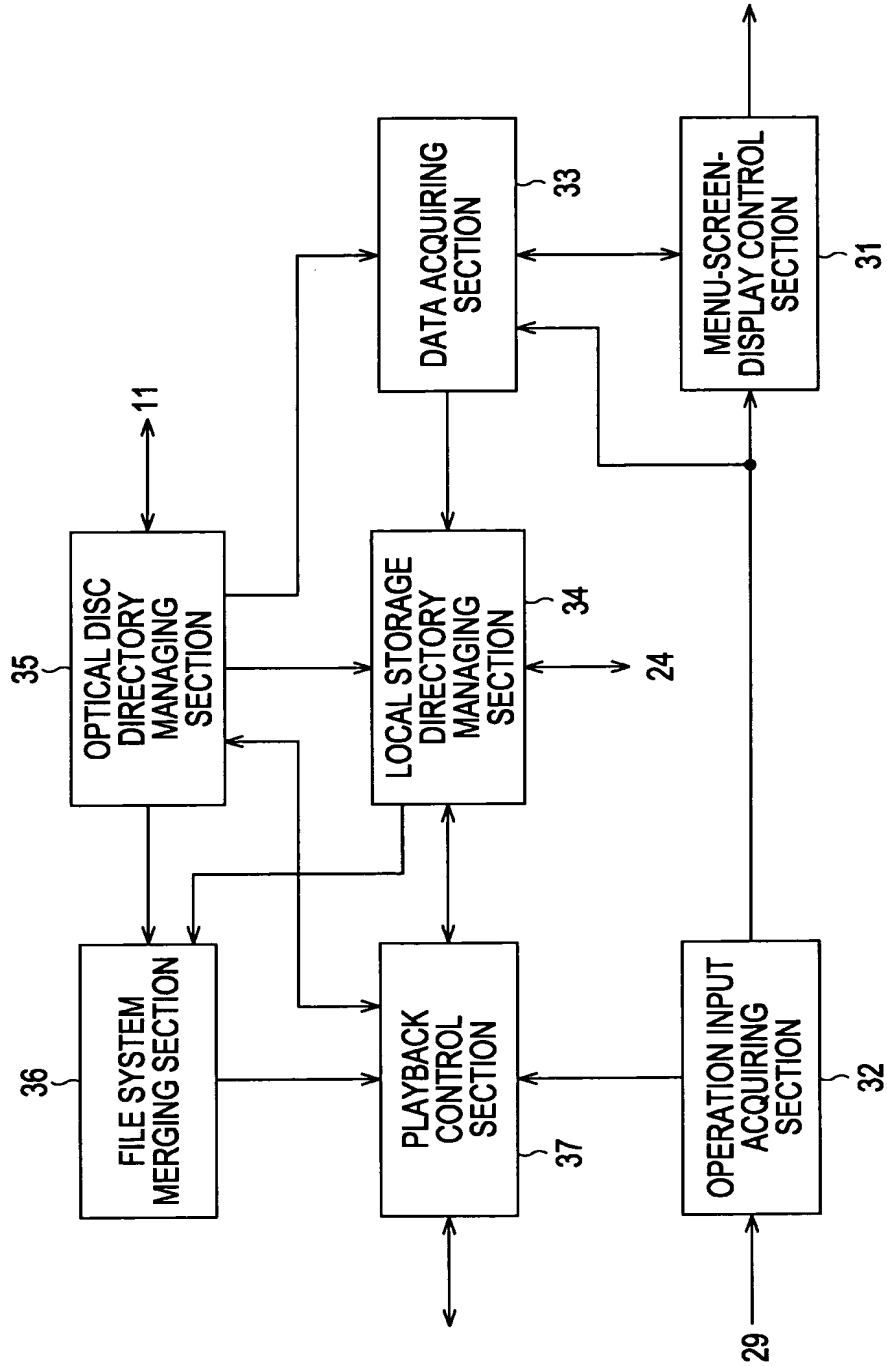


FIG. 5



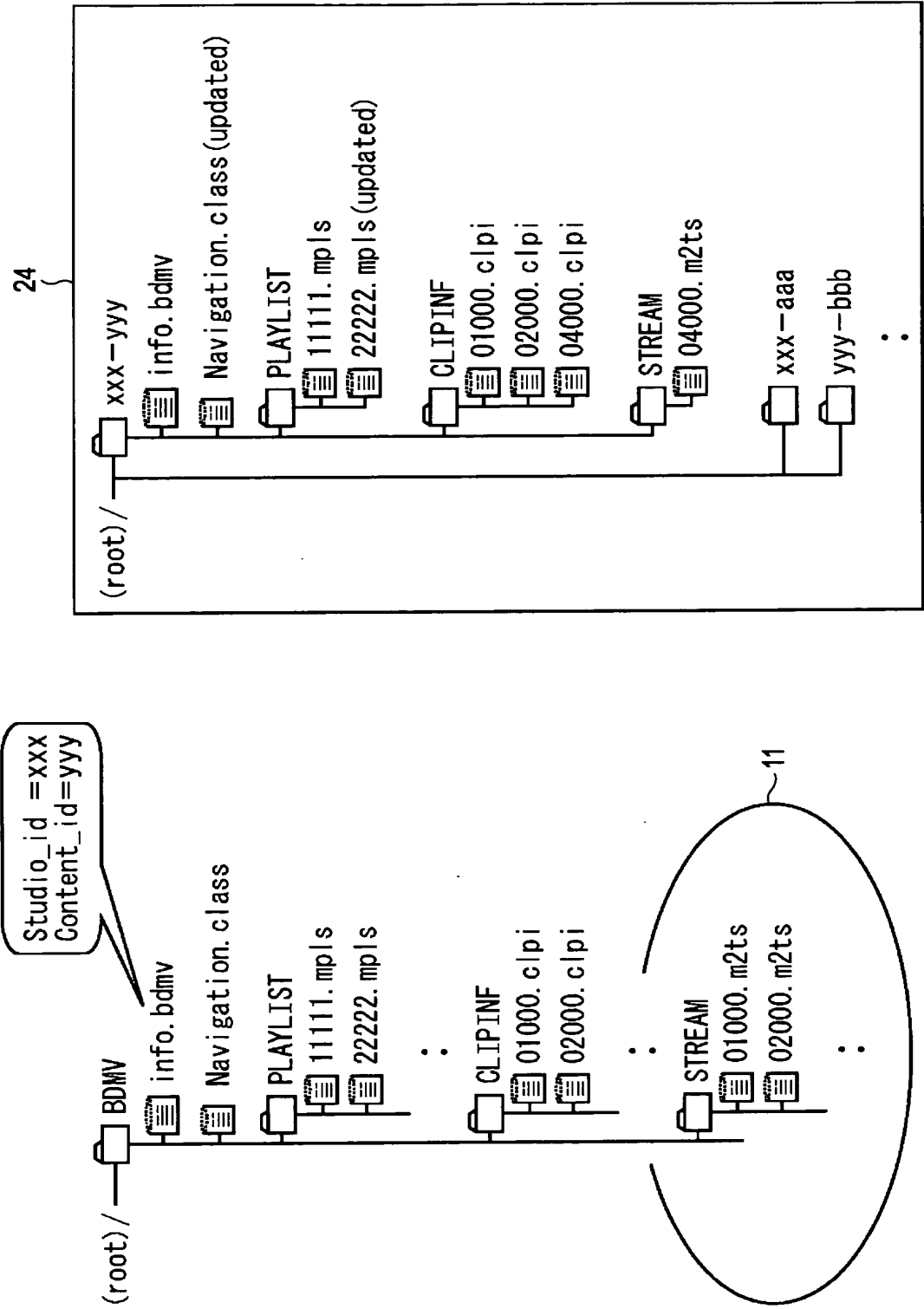
6/70

FIG. 6



7/70

FIG. 7



8/70

FIG. 8

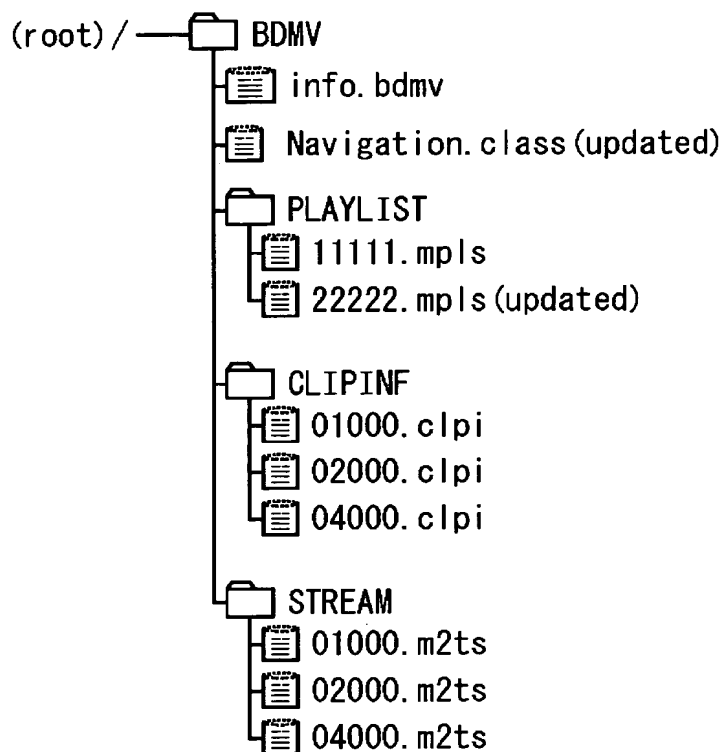




FIG. 9

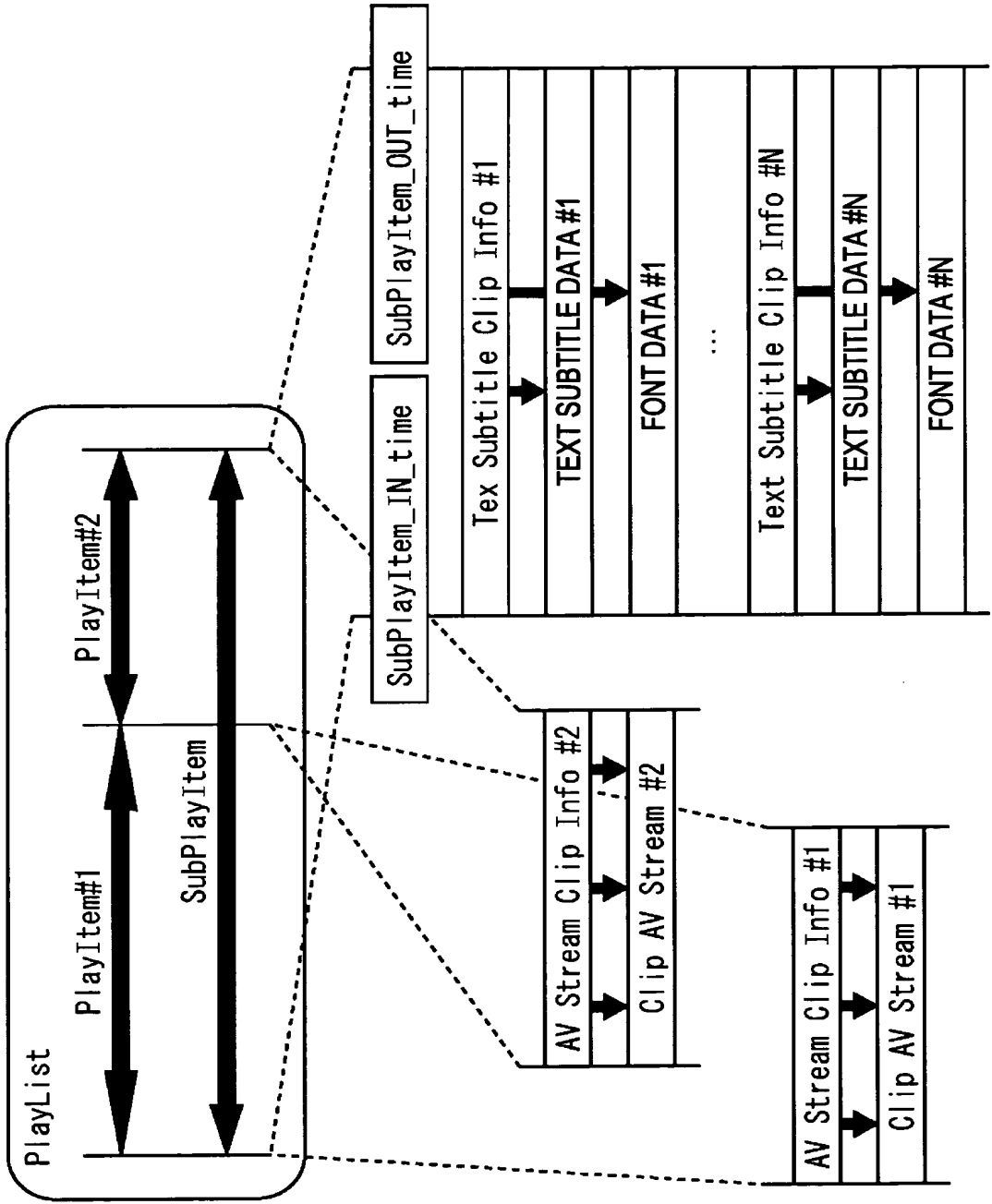


FIG. 10

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
TextSubtitleArchive () {		
PlayList_file	X	uimbsf
number_of_TextSubtitle	8	uimbsf
for (i=0; i<number_of_TextSubtitle; i++) {		
text_subtitle_file	Y	uimbsf
font_file	Z	uimbsf
}		
}		

11/70

FIG. 11

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
SubPlayItem () {		
Ref_to_STC_id	8	uimsbf
SubPlayItem_IN_time	32	uimsbf
SubPlayItem_OUT_time	32	uimsbf
number_of_ClipTextSubtitle	8	uimsbf
for (i=0; i<number_of_ClipTextSubtitle: i++) {		
language_id	8	uimsbf
character_code_id	8	uimsbf
font_format_id	8	uimsbf
font_file_path_length	16	uimsbf
font_file_path	X	uimsbf
subtitle_file_path_length	16	uimsbf
subtitle_file_path	Y	uimsbf
comment_length	16	uimsbf
comment	Z	uimsbf
}		
}		

FIG. 12

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
subtitle_file() {		
version	16	uimbsf
markup_type	8	uimbsf
subtitle_count	32	uimbsf
for (i=0; i<subtitle_data_count; i++) {		
start_PTS	33	uimbsf
end_PTS	33	uimbsf
subtitle_data_length	32	uimbsf
subtitle_data	X	uimbsf
}		
}		

13/70

**FIG. 13**

REPRESENTATION	NAME
TAB	TAB

**FIG. 14**

REPRESENTATION	NAME
CR	Carriage Return
LF	Line Feed
CR + LF	Carriage Return+Line Feed
NEL	New Line
VT	Vertical Tabulation
FF	Form Feed
LS	Line Separator
PS	Paragraph Separator

**FIG. 15**

MARKUP FORMAT IDENTIFIER	MEANING
0x00	TLV ENCODING FORMAT
0x01	TAGGED LANGUAGE

FIG. 16

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
subtitle_data() {		
for ( : : ) {		
escape_code	8	Uimsbf
attribute_type	8	Uimsbf
attribute_value_length	16	Uimsbf
for (int i=0; i< attribute_data_length; i++) {		
attribute_value	8	uimsbf
}		
char_data	X	uimsbf
}		
}		

15/70

FIG. 17

VALUE	MEANING
0x1B	ESCAPE

FIG. 18

attribute_type	MEANING
0x01	CLUT SETTING
0x02	SPECIFICATION OF REGION ORIGIN
0x03	SPECIFICATION OF LINE SPACE
0x04	SPECIFICATION OF RENDERING DIRECTION
0x05	SPECIFICATION OF FONT COLOR
0x06	SPECIFICATION OF BACKGROUND COLOR
0x07	SPECIFICATION OF FONT STYLE
0x08	SPECIFICATION OF FONT SIZE
0x09	SPECIFICATION OF ROTATIONAL ANGLE
0x0A	START POSITION OF BOOKMARK
0x0B	END POSITION OF BOOKMARK
0x0C	SPECIFICATION OF REPETITION OF CHARACTER OBJECT SEQUENCE PROVIDED WITH BOOKMARK

FIG. 19

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
CLUT() {		
CLUT_size	8	uimsbf
for (i = 0; i<CLUT_size; i++) {		
Y	8	uimsbf
Cb	8	uimsbf
Cr	8	uimsbf
T	8	uimsbf
}		
}		



FIG. 20

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
origin_of_region() {		
x_coordinate	16	uimbsf
y_coordinate	16	uimbsf
}		

FIG. 21

VALUE	MEANING
0x00	LEFT TO RIGHT
0x01	RIGHT TO LEFT
0x02	UP TO DOWN

FIG. 22

VALUE	MEANING
0x00	STANDARD
0x01	BOLD
0x02	ITALIC

FIG. 23

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
start_of_bookmark() {		
bookmark_id	8	uimsbf
start_of_bookmark_indicator	8	uimsbf
}		

FIG. 24

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
end_of_bookmark () {		
bookmark_id	8	uimbsbf
end_of_bookmark_indicator	8	uimbsbf
}		

FIG. 25

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
repeat_of_bookmark() {		
bookmark_id	8	uimsbf
count	8	uimsbf
}		

FIG. 26

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
subtle_data() {		
for ( : : ) {		
TaggedAttr	X	uimbf
char_data	Y	uimbf
}		

23/70

FIG. 27

```
TaggedAttr ::= '<' Name (S Attribute)* S? '>'
Name ::= (Letter | '_' | ':') (NameChar)*
NameChar ::= Letter | Digit | '.' | '-' | '_' | ':'
S ::= (#x20 | #x9 | #xD | #xA)+ ; space
Letter ::= #x41-5A / #x61-7A ; A-Z / a-z
Digit ::= #x30-39 ; 0-9
```

FIG. 28

```
<CLUT size= y= cb= cr= t= >
<region x= y=>
<linespace d=>
<textflow d=>
<fontcolor c=>
<backgroundcolor c=>
<fontstyle s=>
<fontsize s=>
<fontrotate a=>
<mark id=>
<repeat id= c=>
```

24/70

FIG. 29

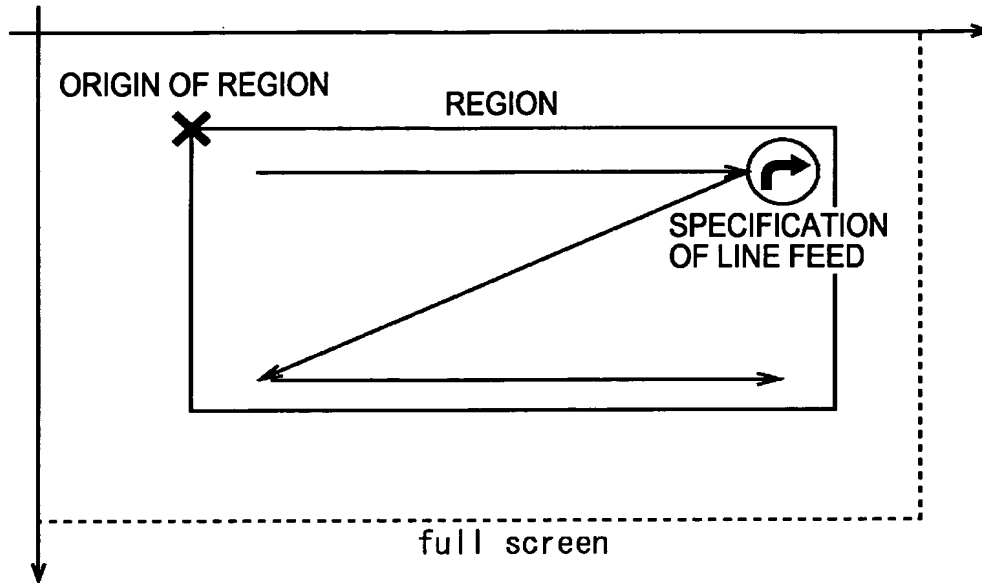
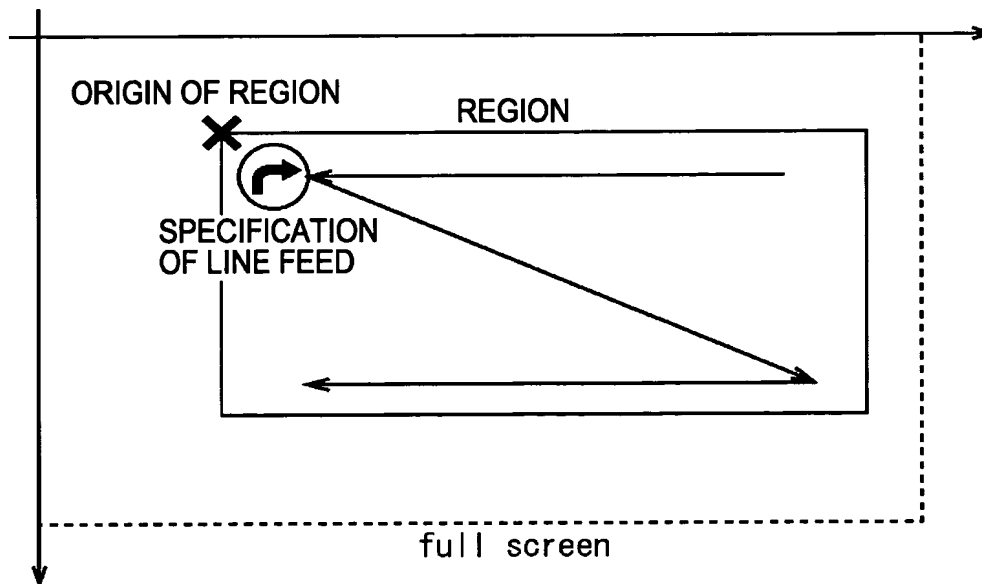


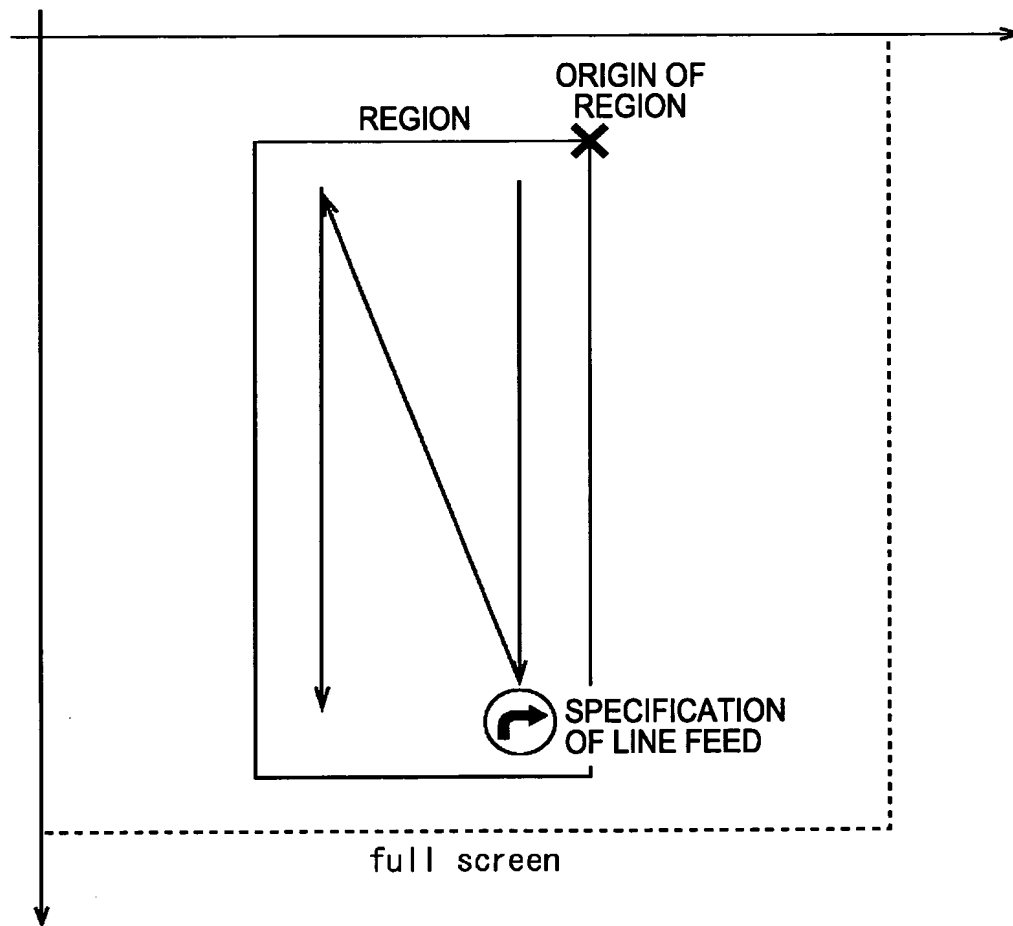
FIG. 30





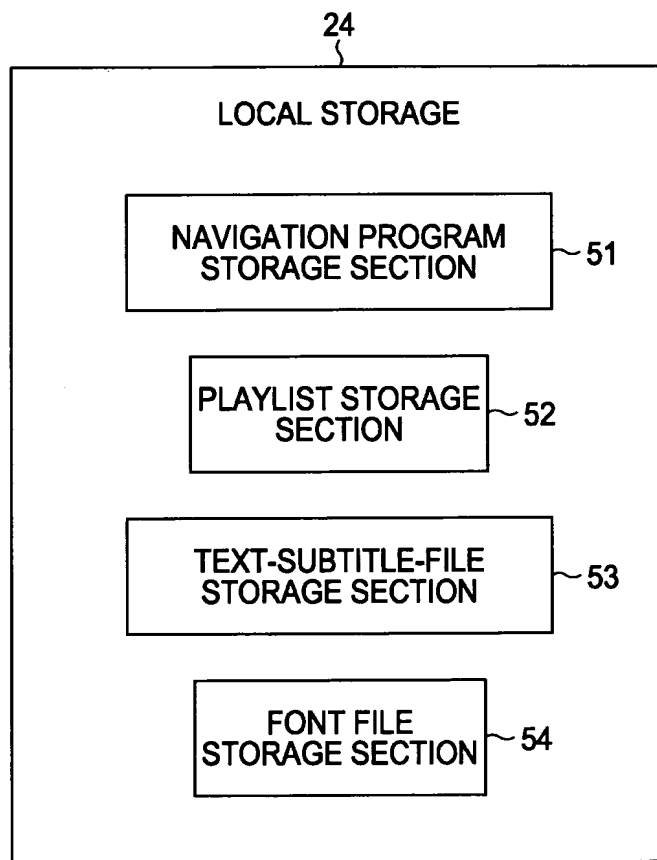
25/70

FIG. 31



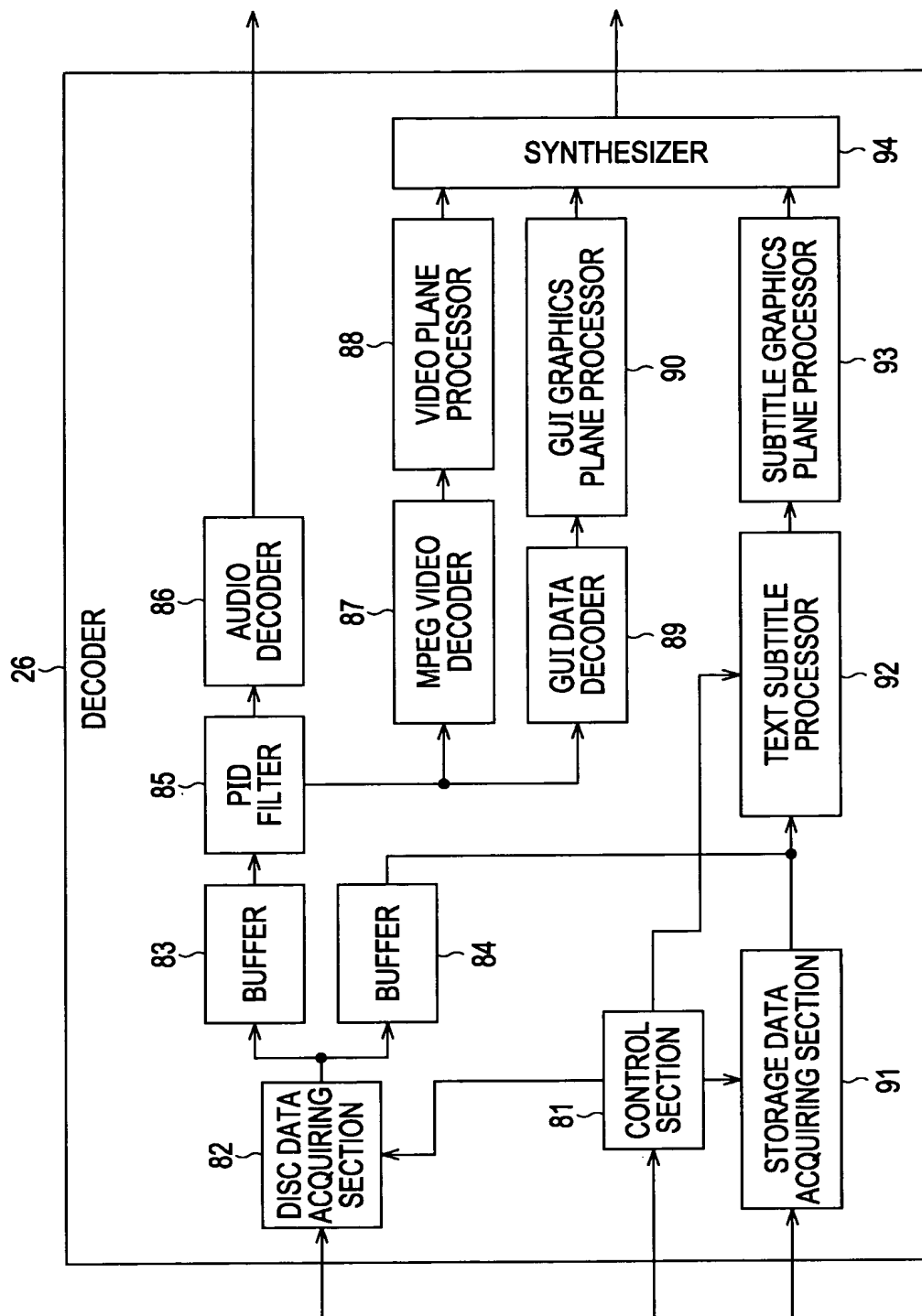
26/70

FIG. 32



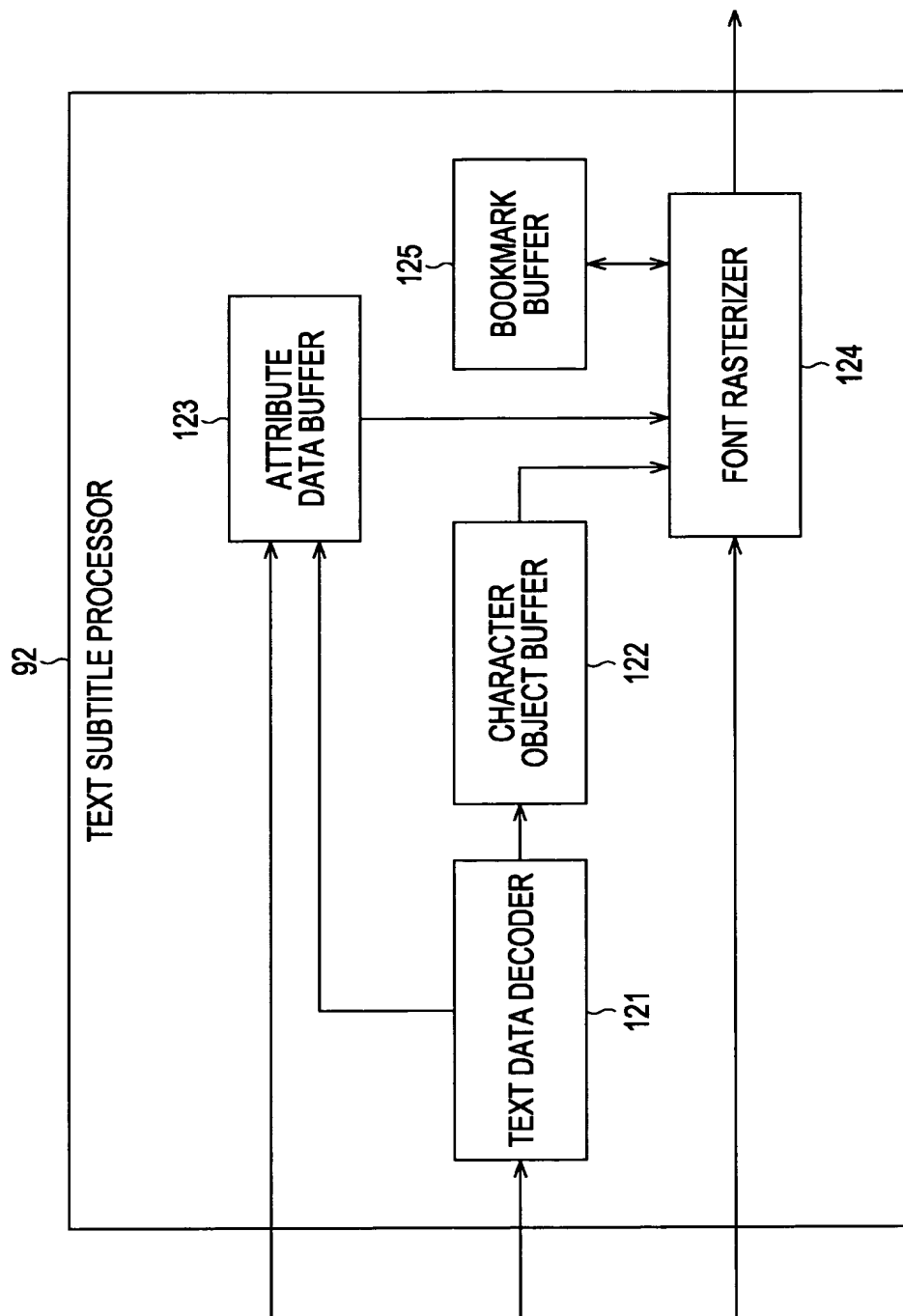
27/70

FIG. 33



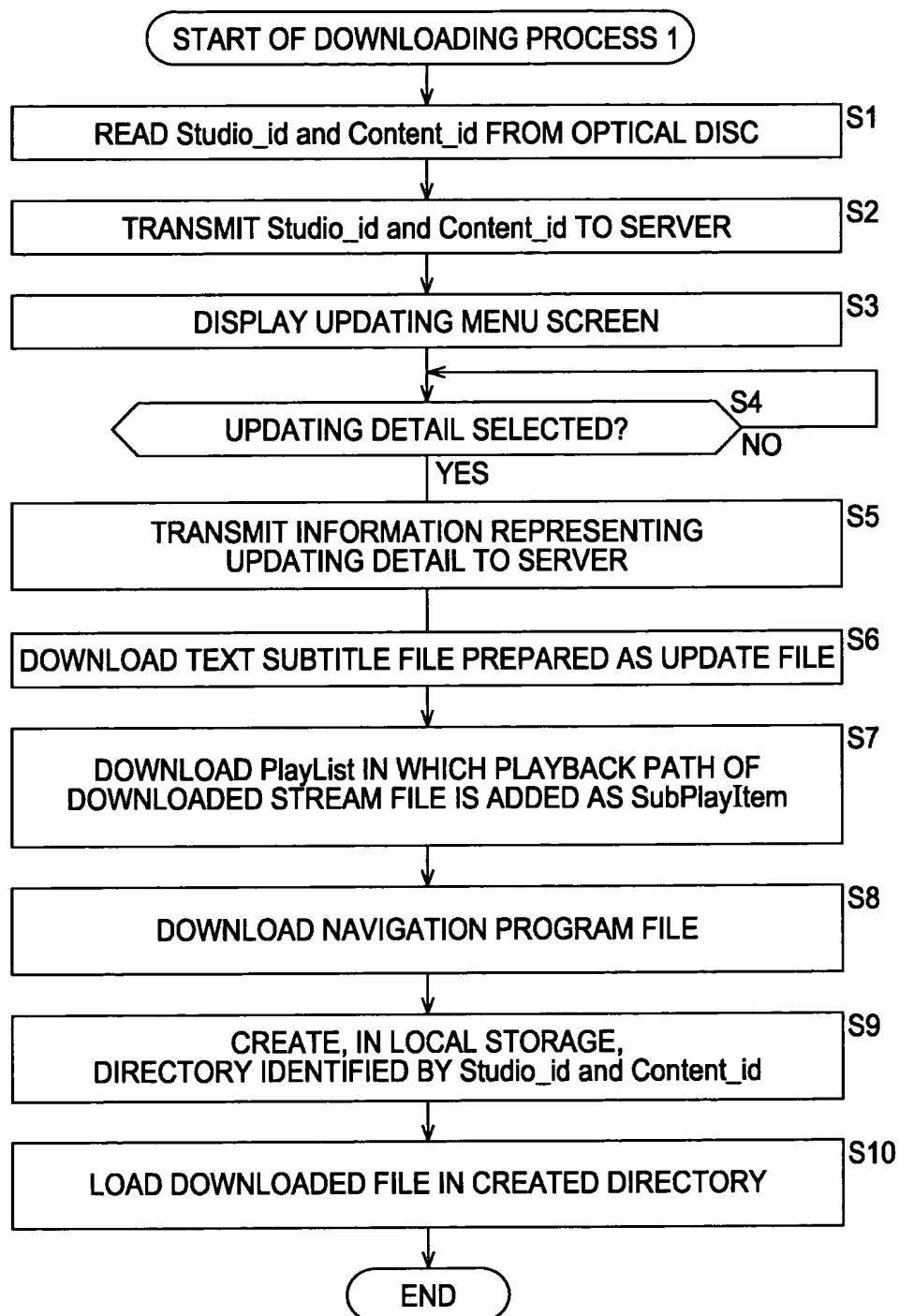
28/70

FIG. 34



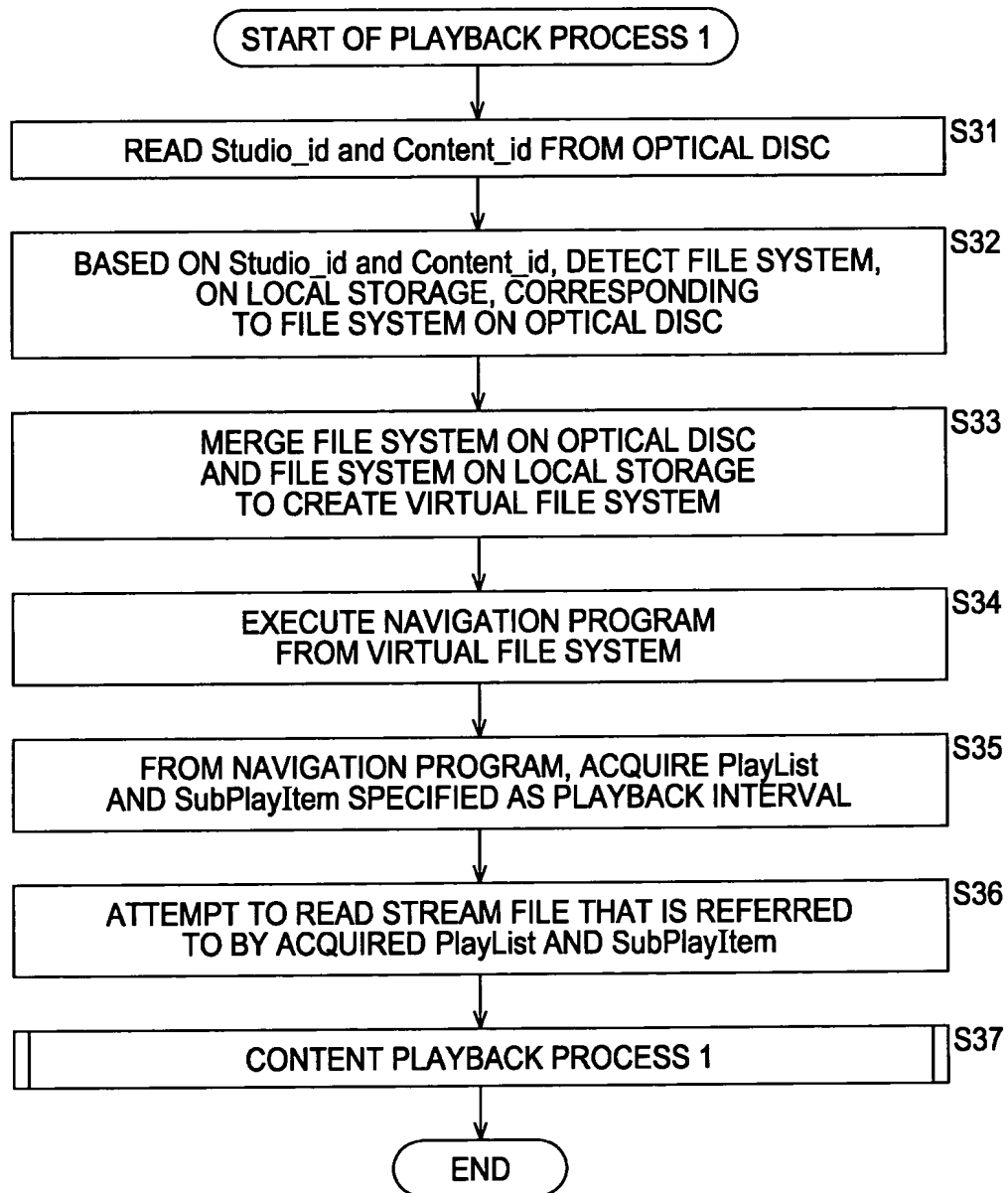
29/70

FIG. 35



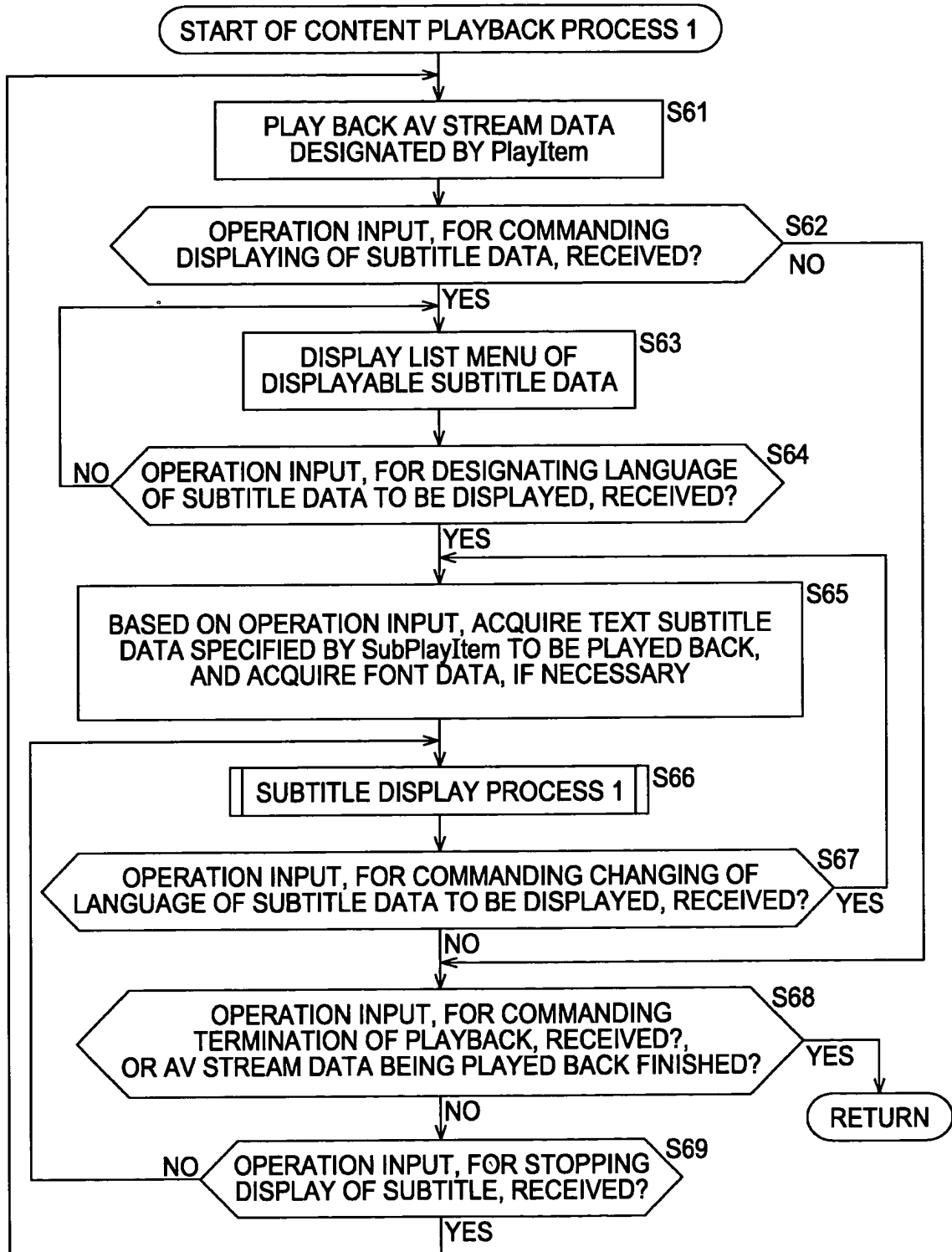
30/70

FIG. 36



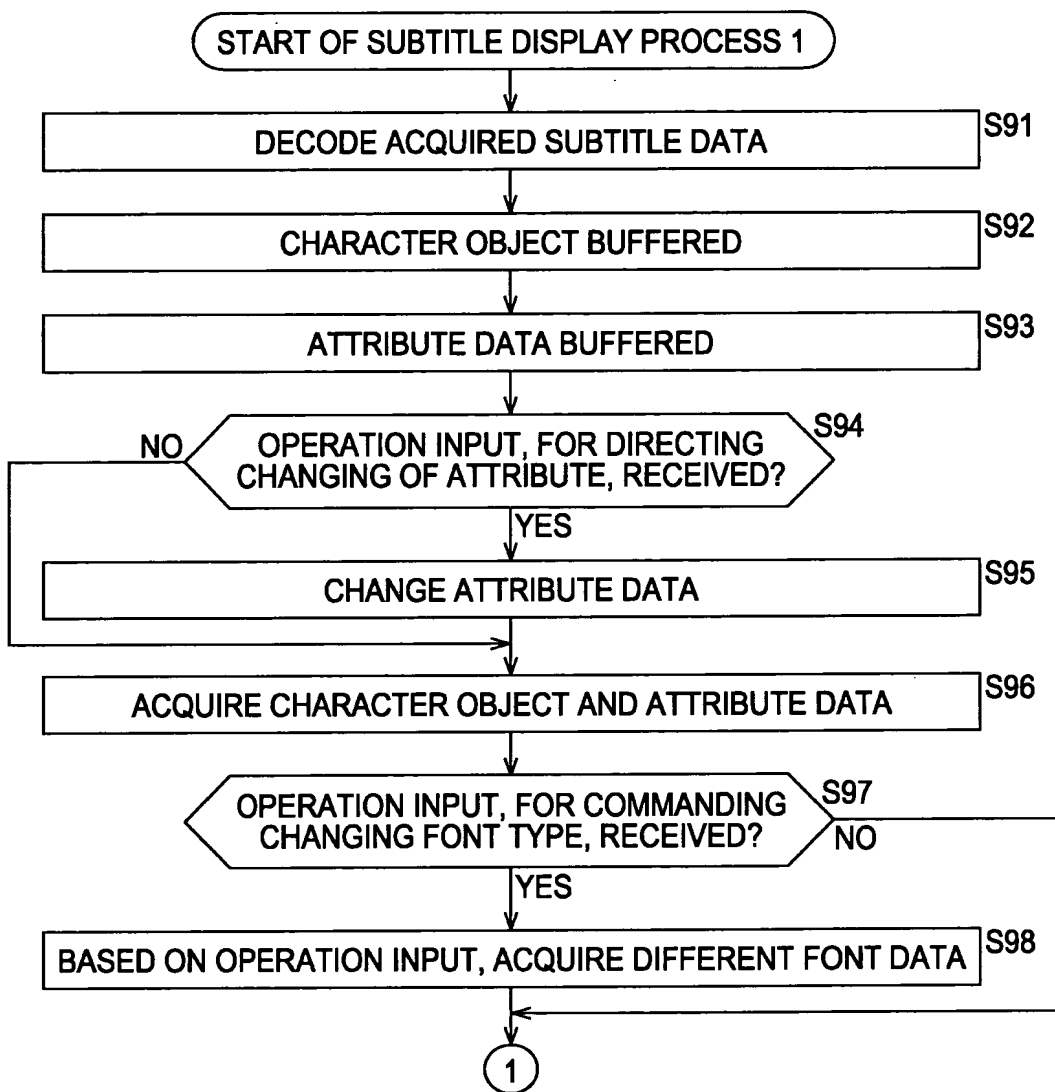
31/70

FIG. 37



32/70

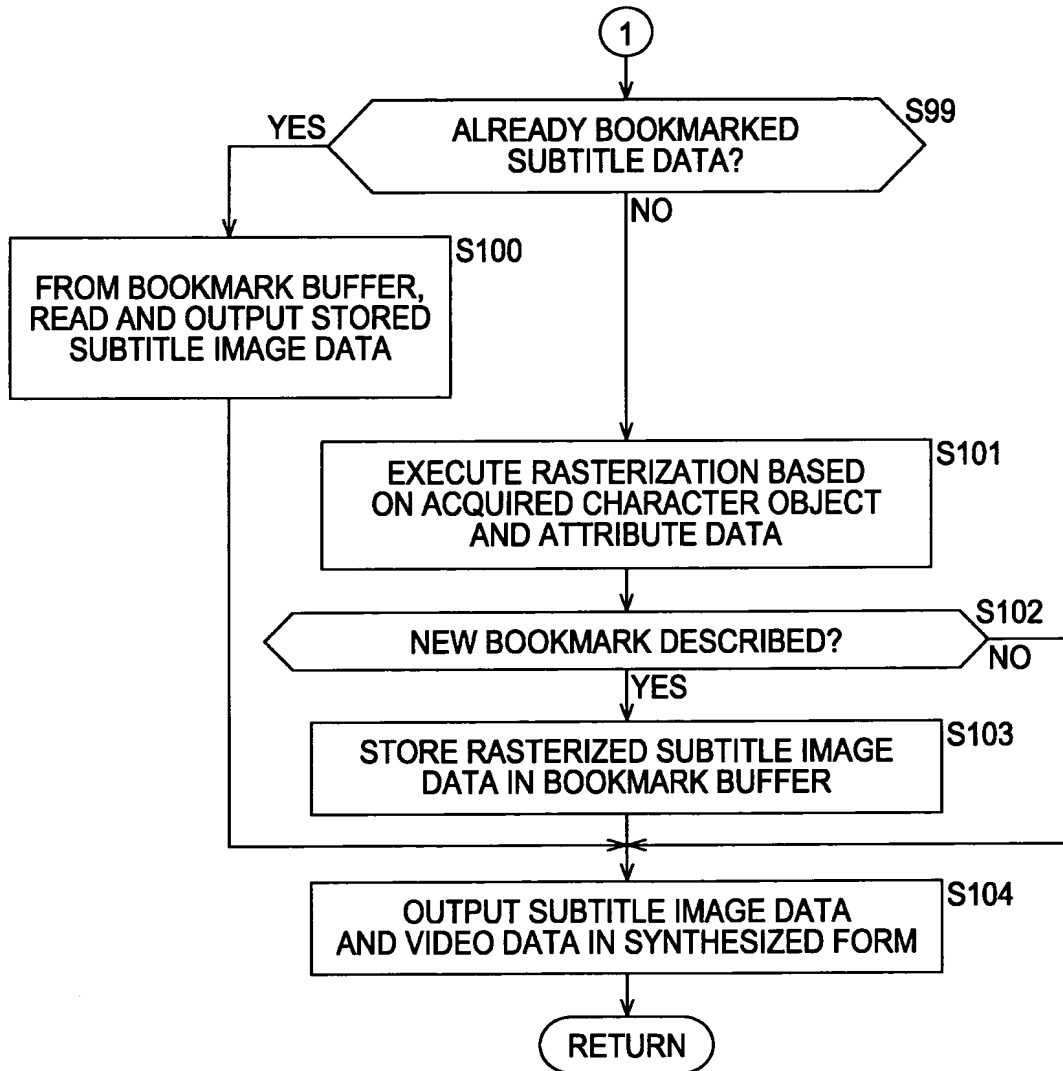
FIG. 38



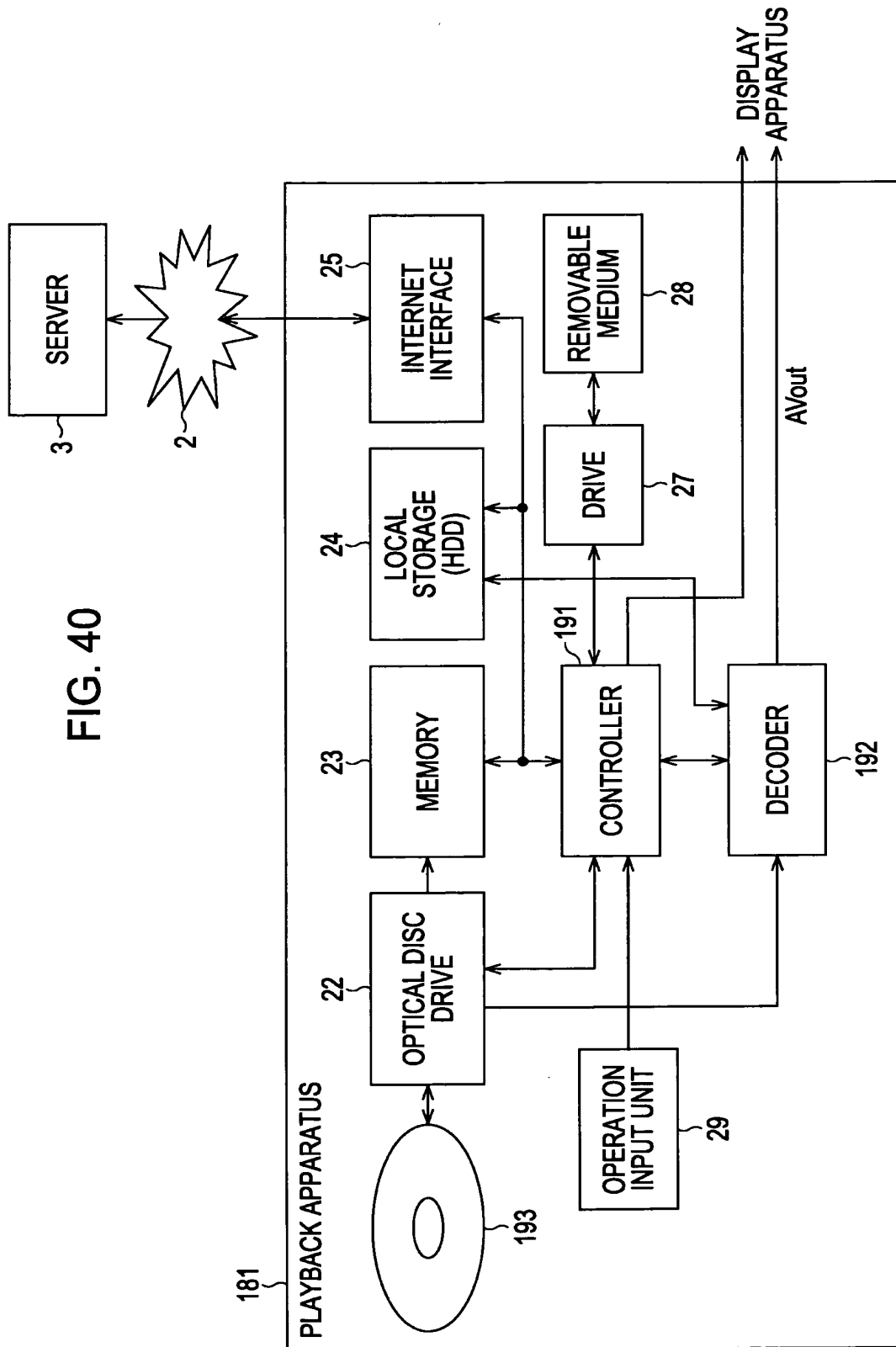


33/70

FIG. 39

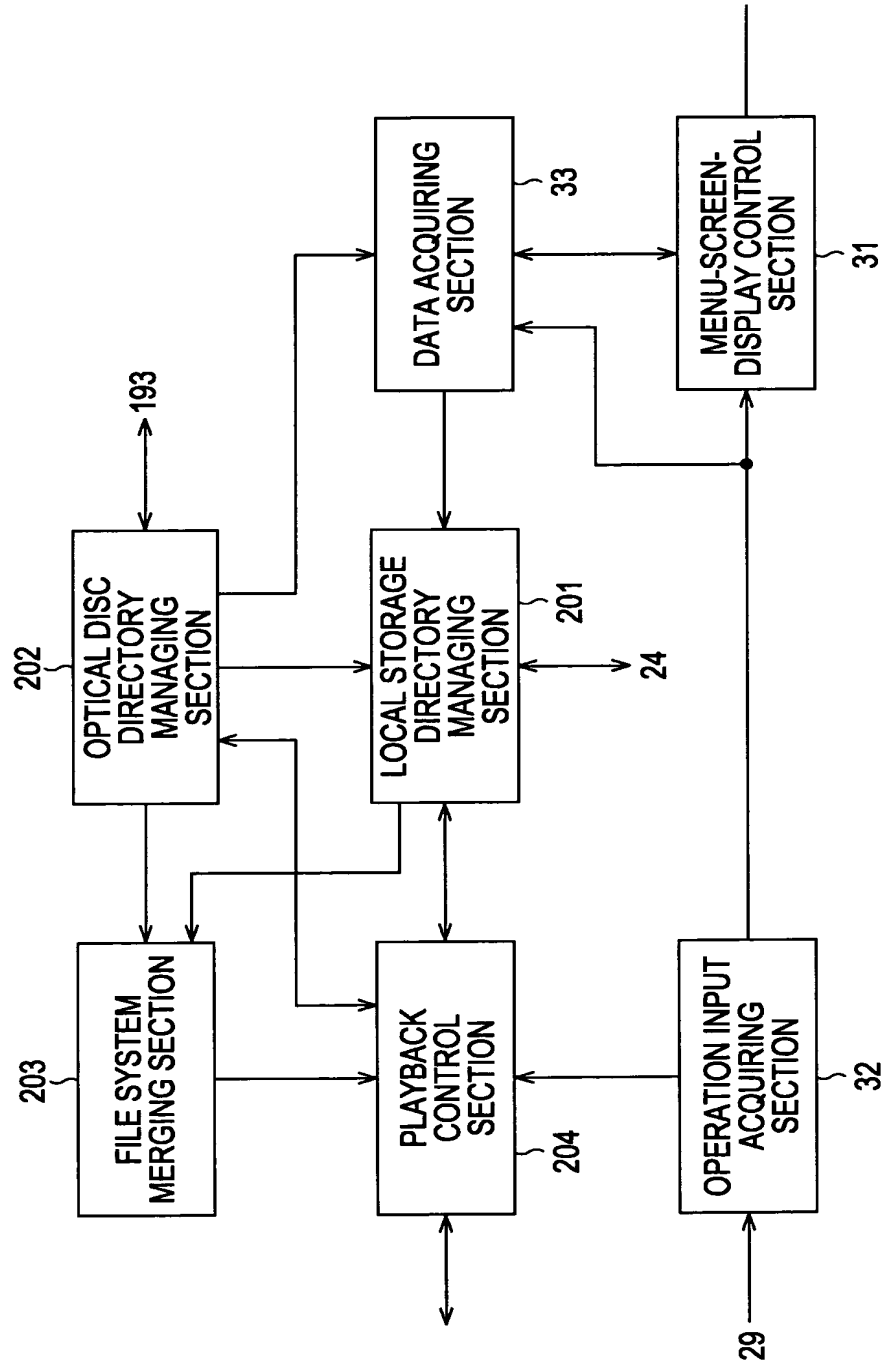


34/70



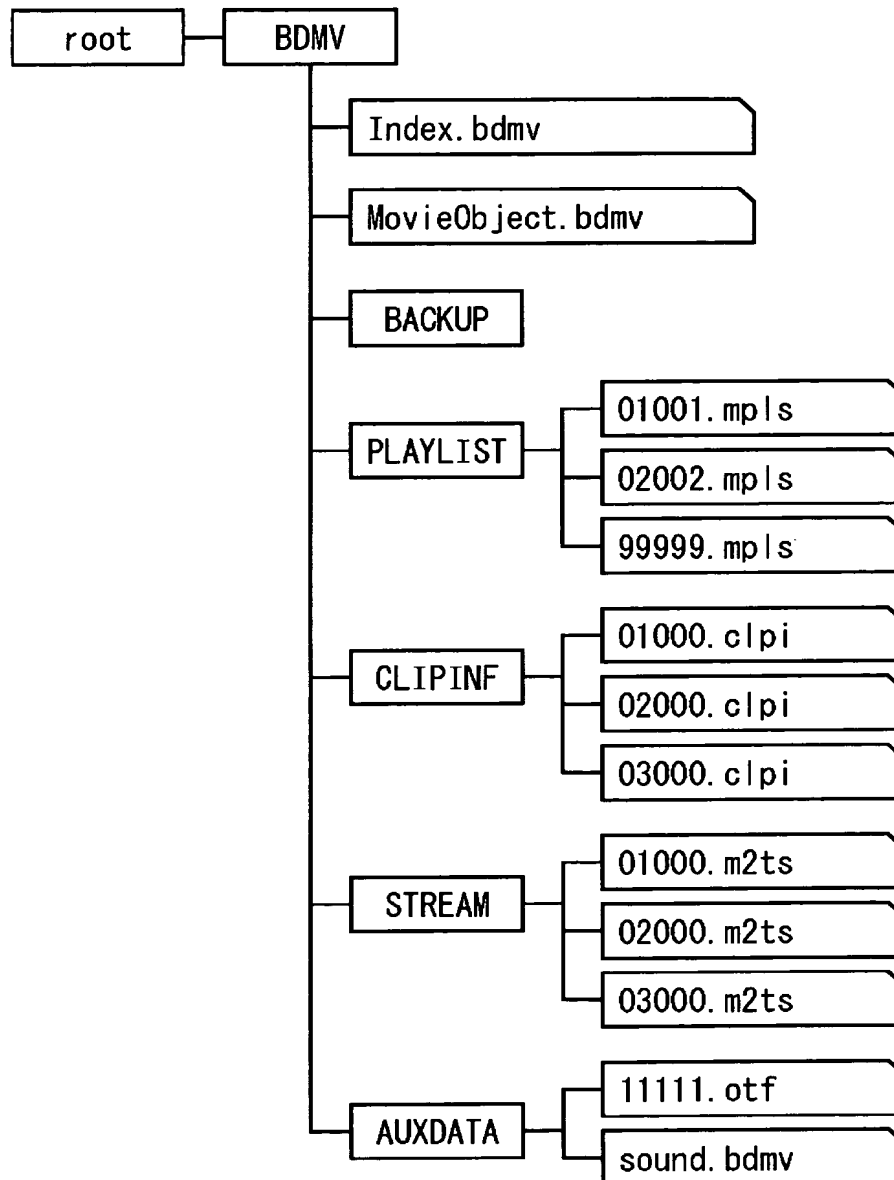
35/70

FIG. 41



36/70

FIG. 42



**37/70**

**FIG. 43**

FILE TYPE	
PlayList FILE	ESSENTIAL
ClipInformation FILE	ESSENTIAL
TEXT SUBTITLE STREAM FILE	ESSENTIAL
FONT FILE	ESSENTIAL

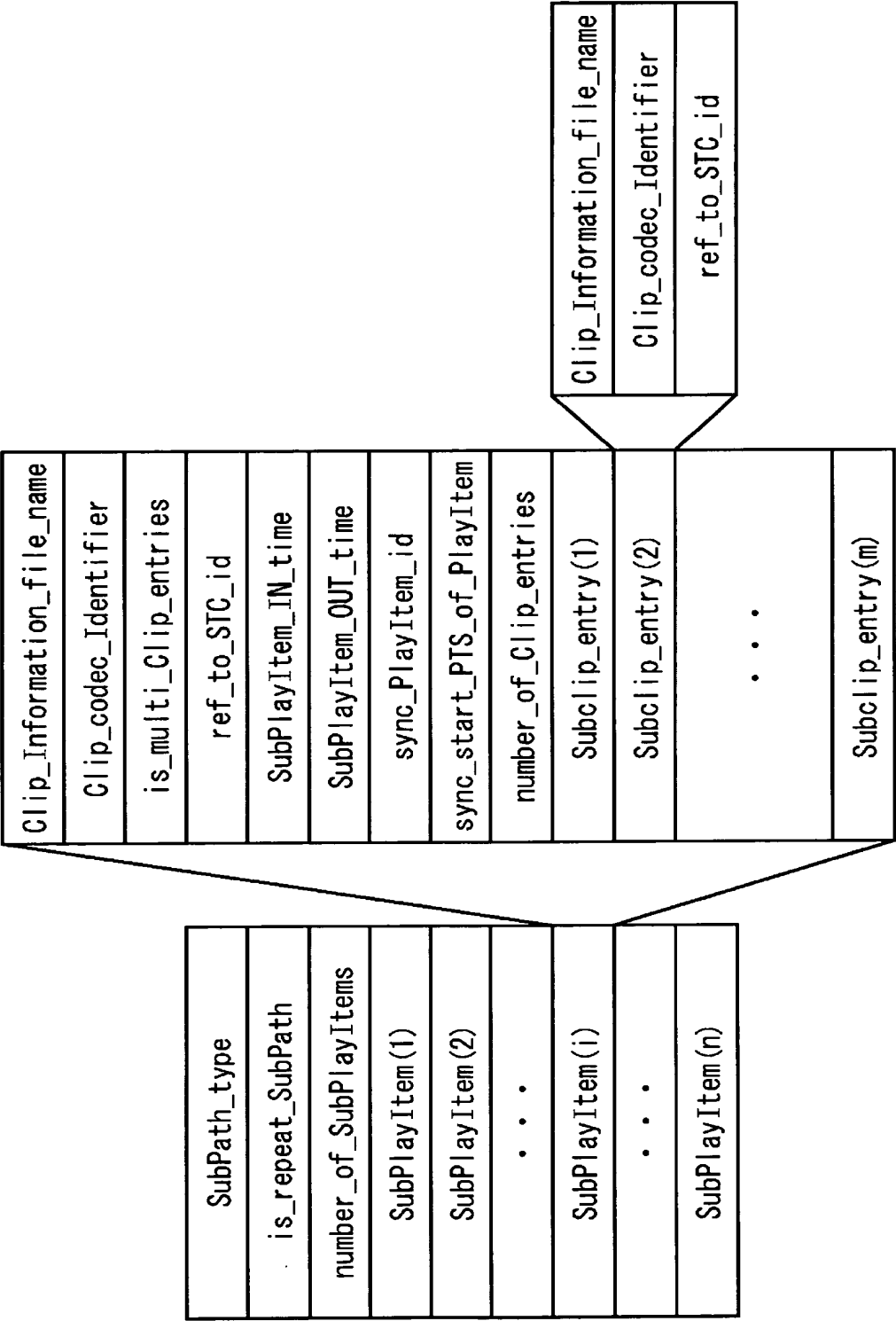
38/70

FIG. 44

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
TextSubtitleArchive() {		
compression_type	8	uimsbf
for_type	8	uimsbf
encryption() {		
PlayList_file_name	8*5	bslbf
PlayList_file_size	32	uimsbf
for(j=0; j<PlayList_file_size; j++) {		
PlayList_file	8	bslbf
}		
number_of_Files	16	uimsbf
for(i=0; i<number_of_Files; i++) {		
TextSubtitle_MetaData() {		
author_id	8	uimsbf
title_id	8	uimsbf
disc_id	8	uimsbf
version	8	uimsbf
operation_type	8	uimsbf
display_name	8*128	bslbf
permission	8	uimsbf
}		
clip_information_file_name	8*5	bslbf
clip_information_file_size	32	uimsbf
for(j=0; j<PlayList_file_size; j++) {		
clip_information_file	8	bslbf
}		
text_subtitle_file_name	8*5	bslbf
text_subtitle_file_size	32	uimsbf
for(j=0; j<PlayList_file_size; j++) {		
text_subtitle_file	8	bslbf
}		
font_file_name	8*5	bslbf
font_file_size	32	uimsbf
for(j=0; j<font_file_size; j++) {		
font_file	8	Bslbf
}		
}		
}		

39/70

FIG. 45



40/70

FIG. 46

VALUE	MEANING
0x01	REPLACE PlayList FILE
0x02	EXTRACT AND ADD SubPath ELEMENT
0x03	EXTRACT AND ADD SubPlayItem ELEMENT
0x04	EXTRACT AND ADD Subclip_entry ELEMENT



41/70

FIG. 47

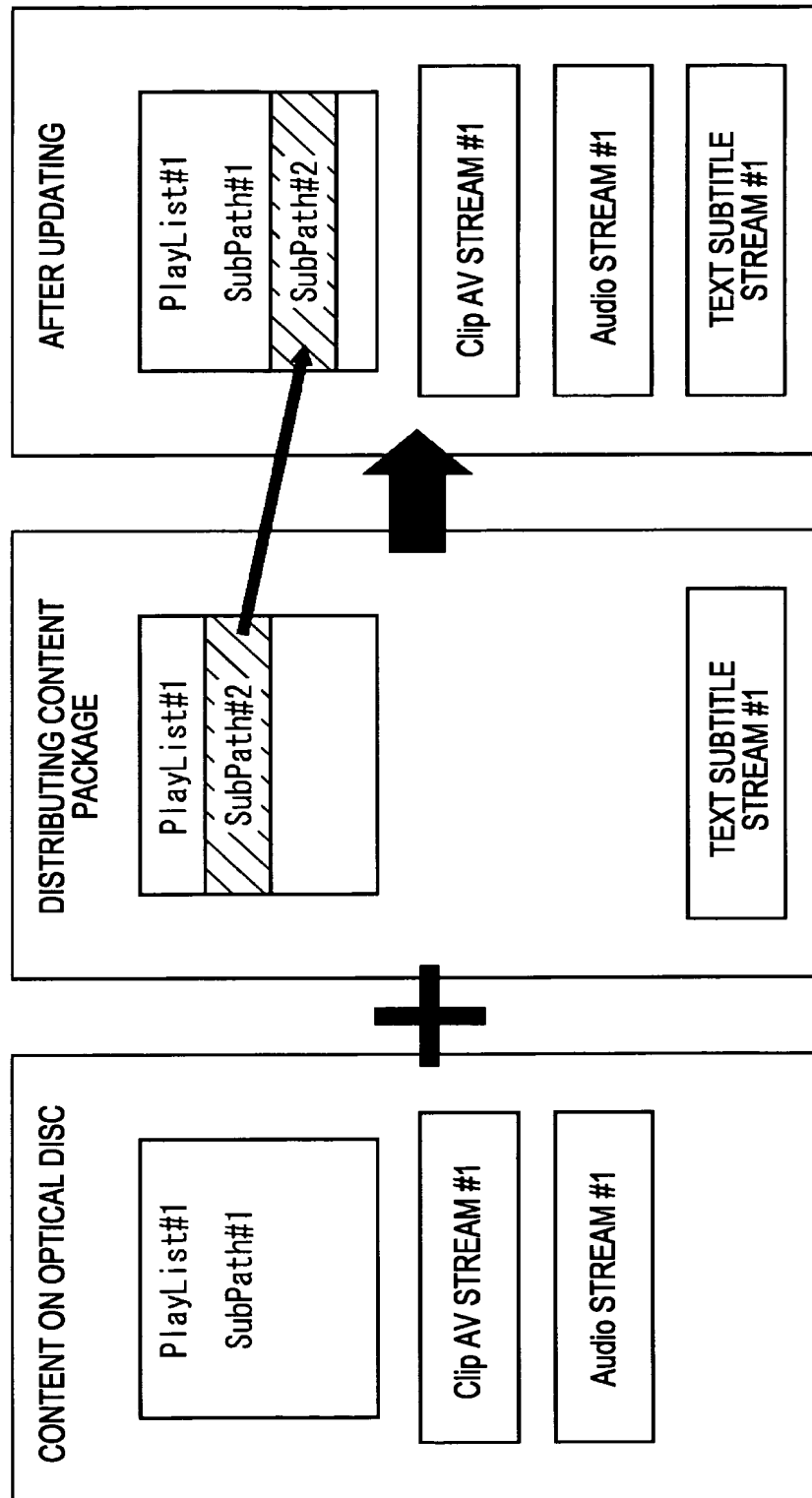
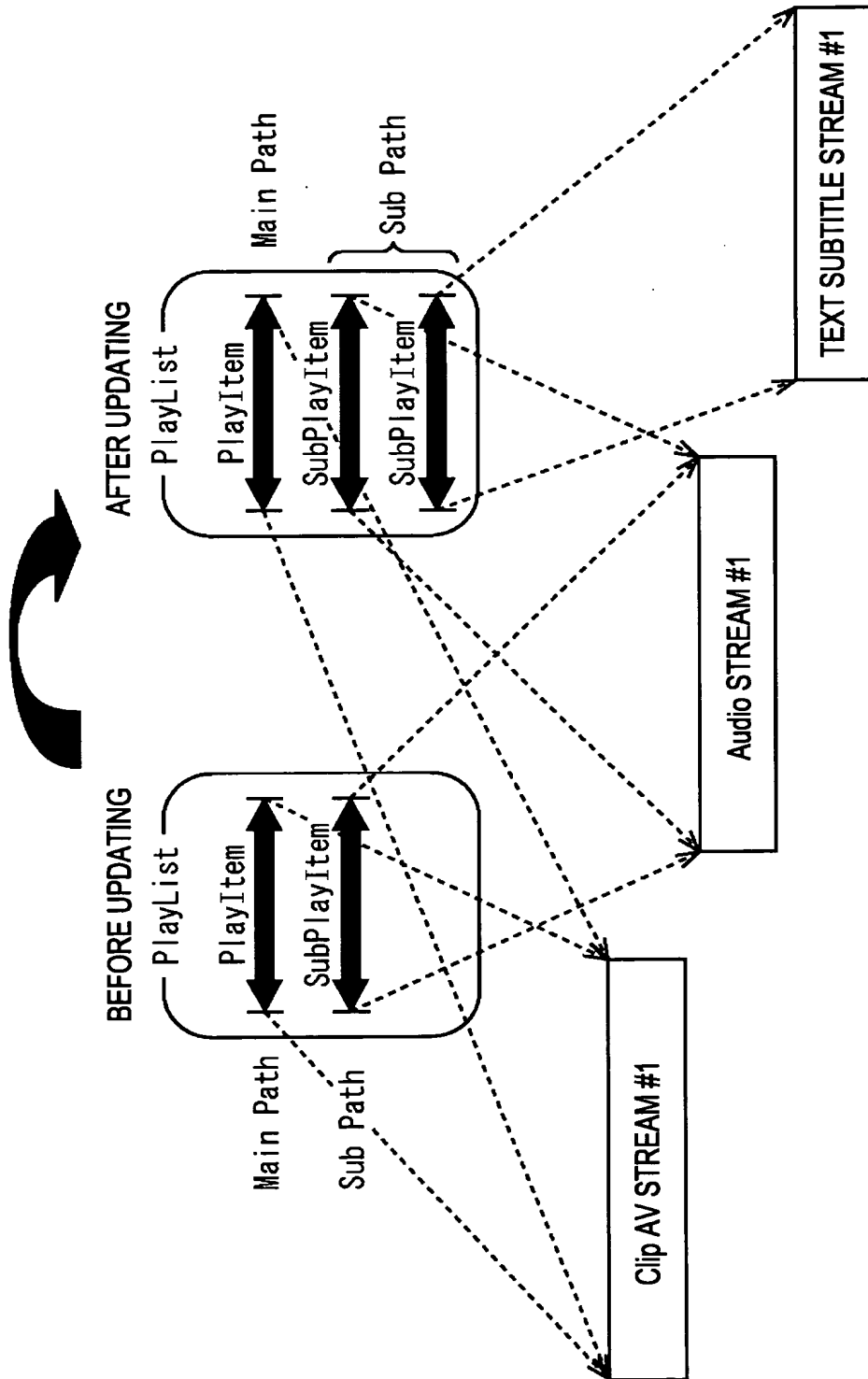


FIG. 48



43/70

FIG. 49

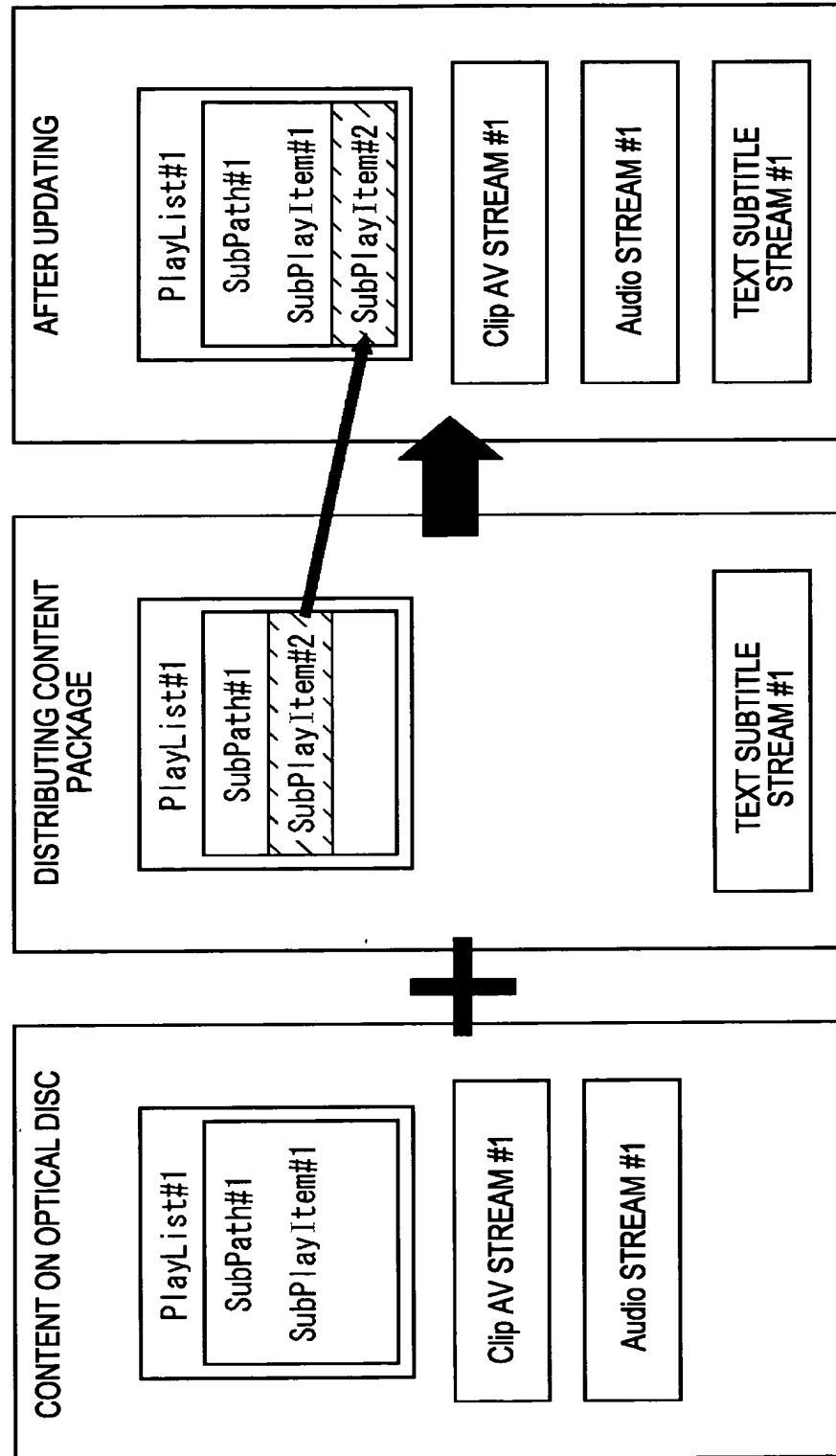


FIG. 50

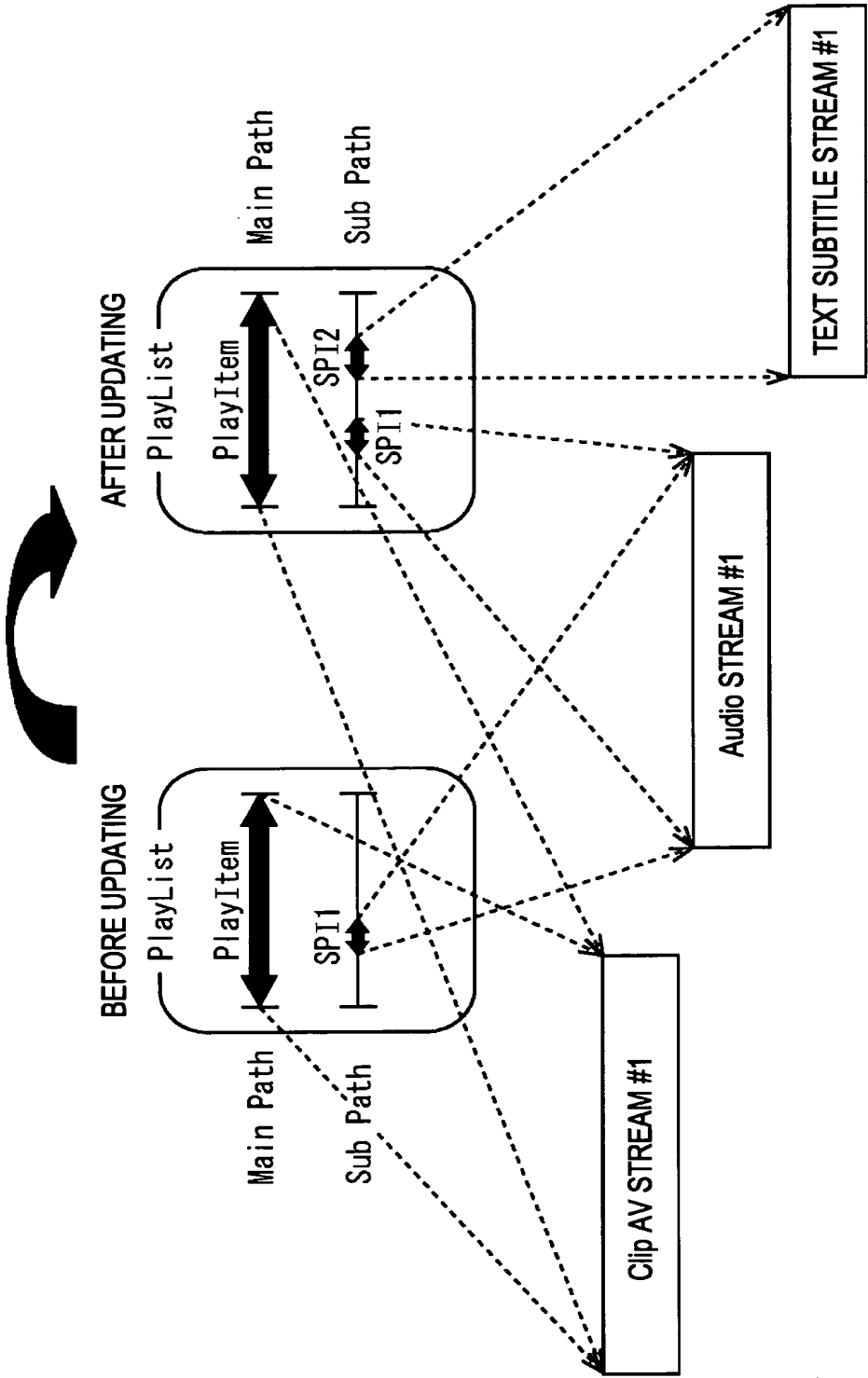


FIG. 51

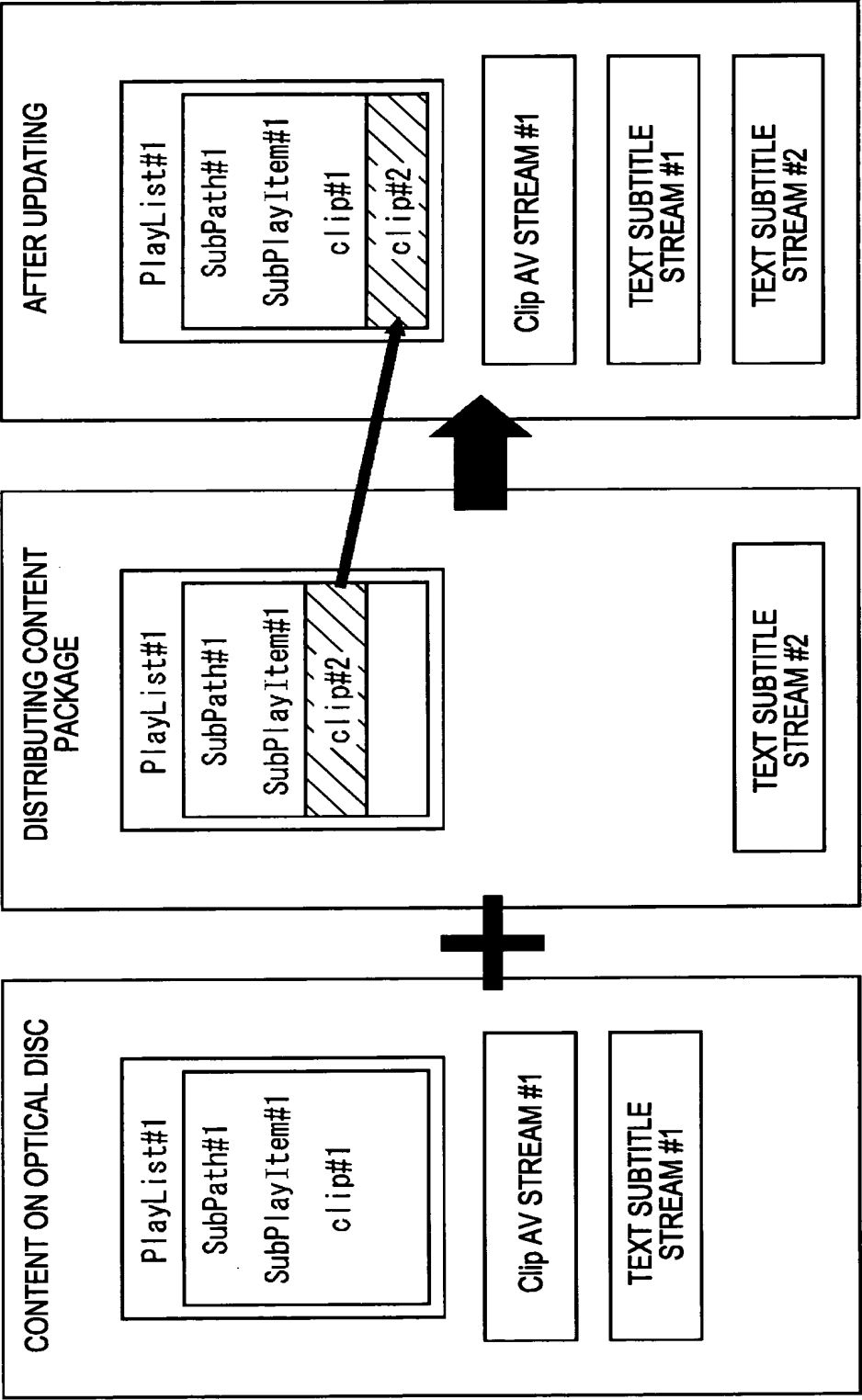
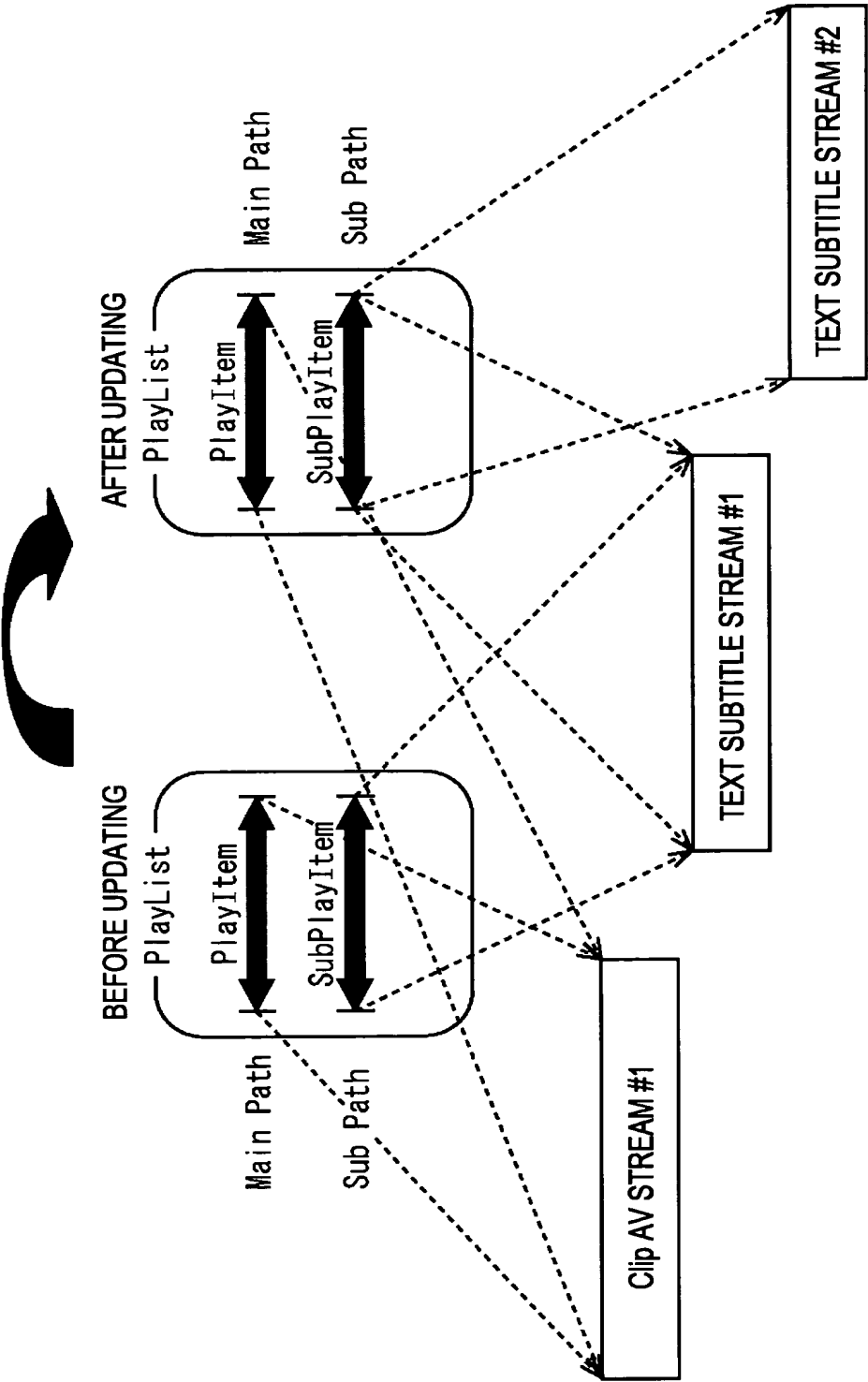


FIG. 52



47/70

**FIG. 53**

VALUE	MEANING
0x00	INVISIBLE ATTRIBUTE (FOR USER)
0x01	VISIBLE ATTRIBUTE (FOR USER)
0x02	OVERWRITING INHIBITION ATTRIBUTE

48/70

FIG. 54

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
subtitle_file() {		
markup_type	8	uimsbf
subtitle_count	32	uimsbf
for (i=0; i<subtitle_data_count; i++) {		
reserved	7	bslbf
start PTS	33	uimsbf
reserved	7	bslbf
end PTS	33	uimsbf
subtitle_data_length	32	uimsbf
subtitle_data	8	bslbf
for (j=0; j<subtitle_data_length; j++) {		
}		
}		
}		



FIG. 55

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
subtitle_data() {		
while (processing_bytes<subtitle_data_length) {		
escape_code	8	uimbsf
data_type	8	uimbsf
data_value_length	16	uimbsf
for (i=0; i<attribute_data_length; i++) {		
data_value	8	bslbf
}		
}		
}		

50/70

**FIG. 56**

<b>data_type</b>	<b>MEANING</b>
0x01	SUBTITLE CHARACTER STRING
0x02	CLUT SETTING
0x03	SPECIFICATION OF REGION ORIGIN
0x04	SPECIFICATION OF LINE SPACE
0x05	SPECIFICATION OF RENDERING DIRECTION
0x06	SPECIFICATION OF FONT COLOR
0x07	SPECIFICATION OF BACKGROUND COLOR
0x08	SPECIFICATION OF FONT STYLE
0x09	SPECIFICATION OF FONT SIZE
0x0A	SPECIFICATION OF ROTATIONAL ANGLE
0x0B	START POSITION OF BOOKMARK
0x0C	END POSITION OF BOOKMARK
0x0D	SPECIFICATION OF REPETITION OF CHARACTER OBJECT SEQUENCE PROVIDED WITH BOOKMARK

51/70

## FIG. 57

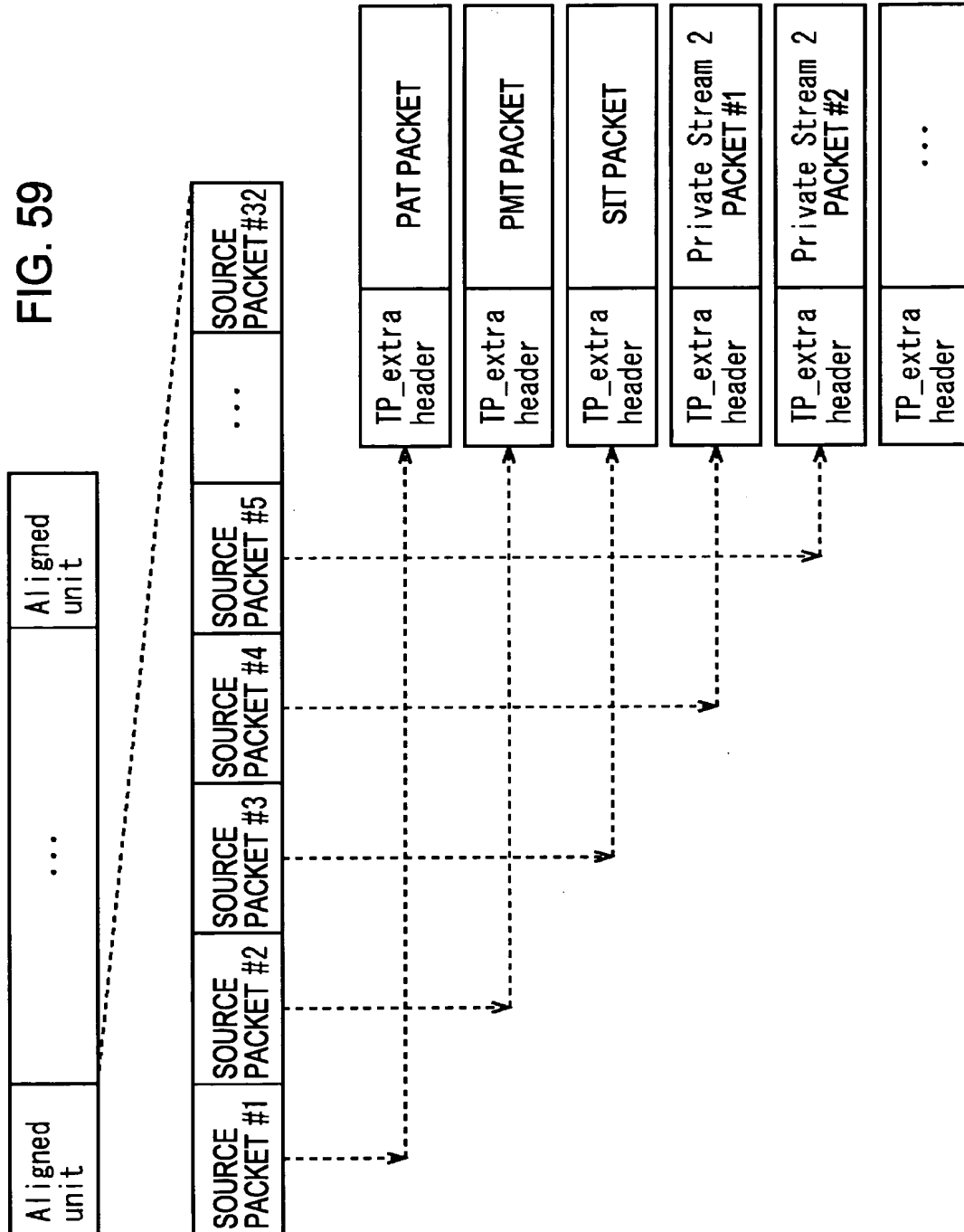
```
<CLUT size= y= cb= cr= t= >  
<region x= y=>  
<linespace d=>  
<textflow d=>  
<fontcolor c=>  
</fontcolor>  
<backgroundcolor c=>  
<fontstyle s=>  
</fontstyle>  
<fontsize s=>  
</fontsize>  
<fontrotate a=>  
</fontrotate>  
<mark id=>  
</mark>  
<repeat id= c=>
```

FIG. 58

DATA STRUCTURE	NUMBER OF BITS	BIT STRING REPRESENTATION
PES PrivateStream2 packet() {		
packet_start_code_prefix	24	bslbf
stream_id	8	uimsbf
PES_packet_length	16	uimsbf
for (i = 0; i<PES_packet_length; i++) {		
PES_packet_data_byte	8	bslbf
}		
}		

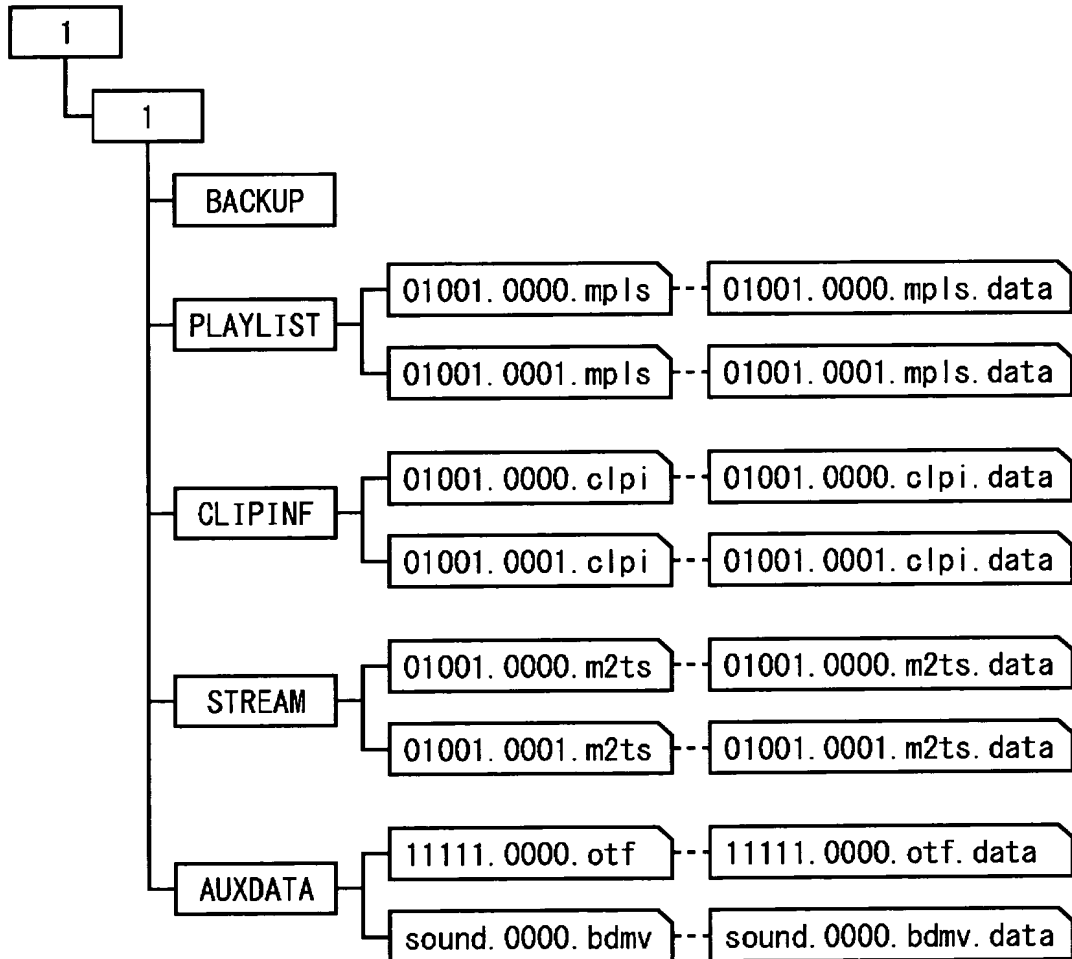
53/70

FIG. 59



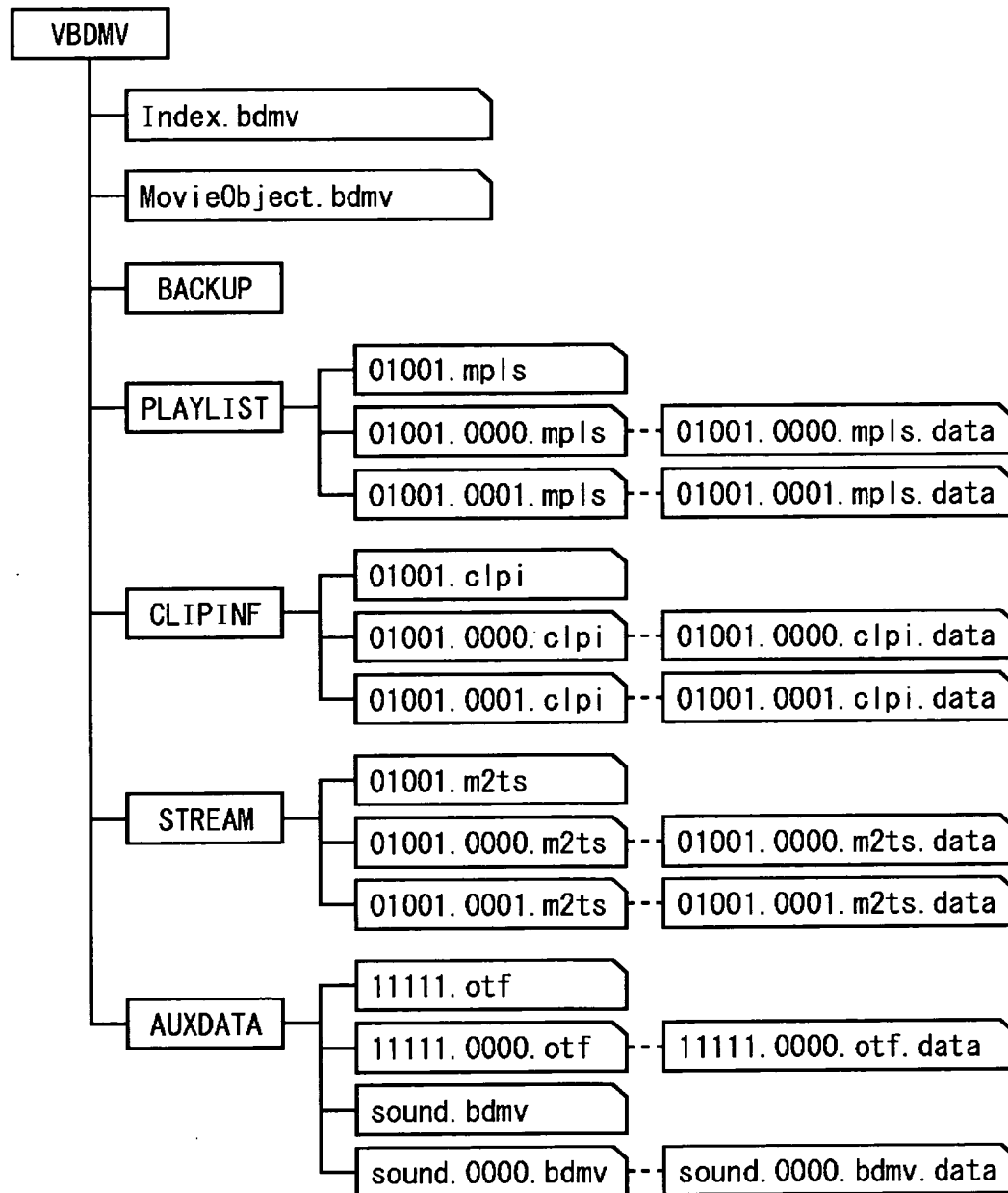
54/70

FIG. 60



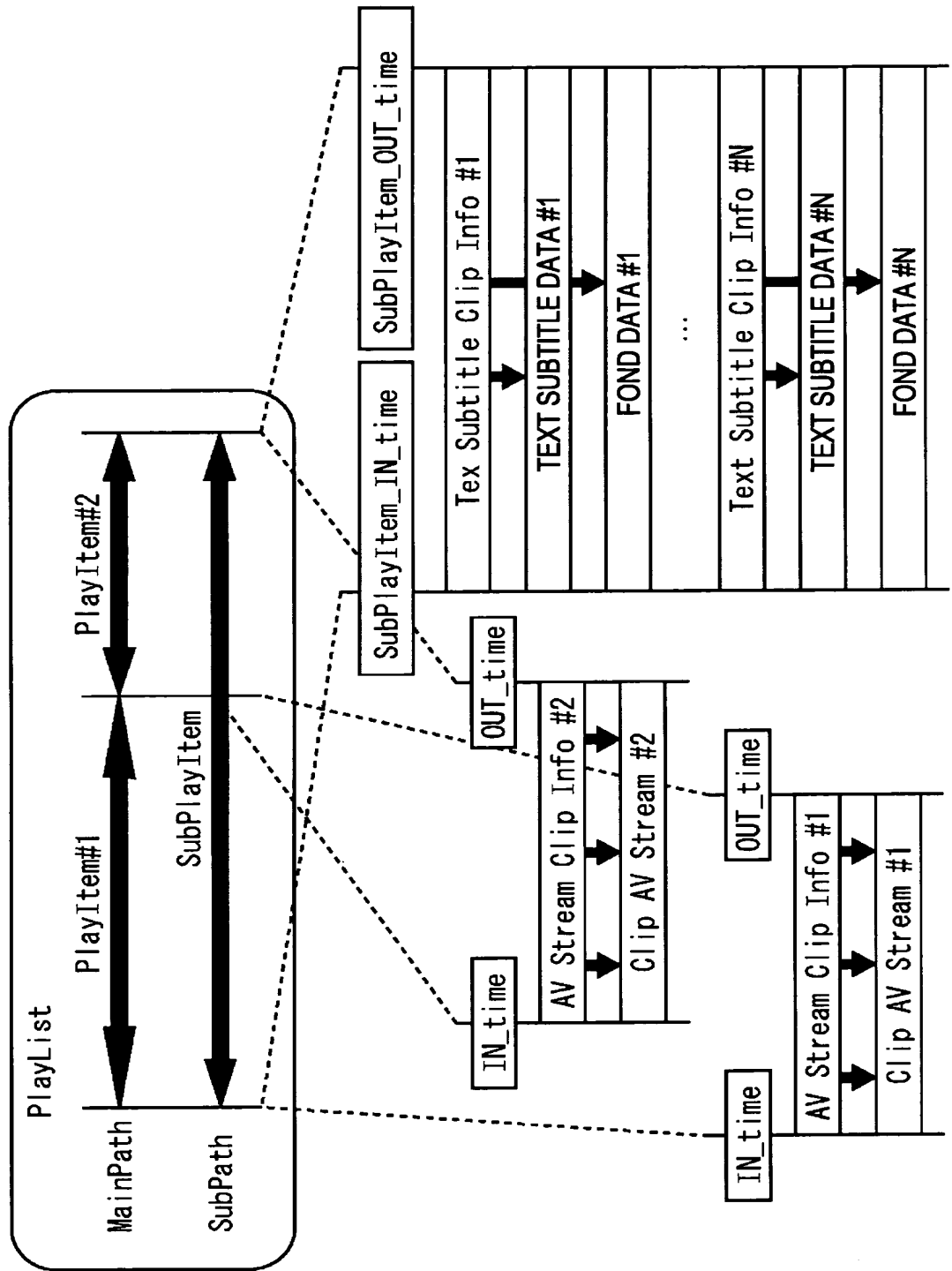
55/70

FIG. 61



56/70

FIG. 62





57/70

FIG. 63

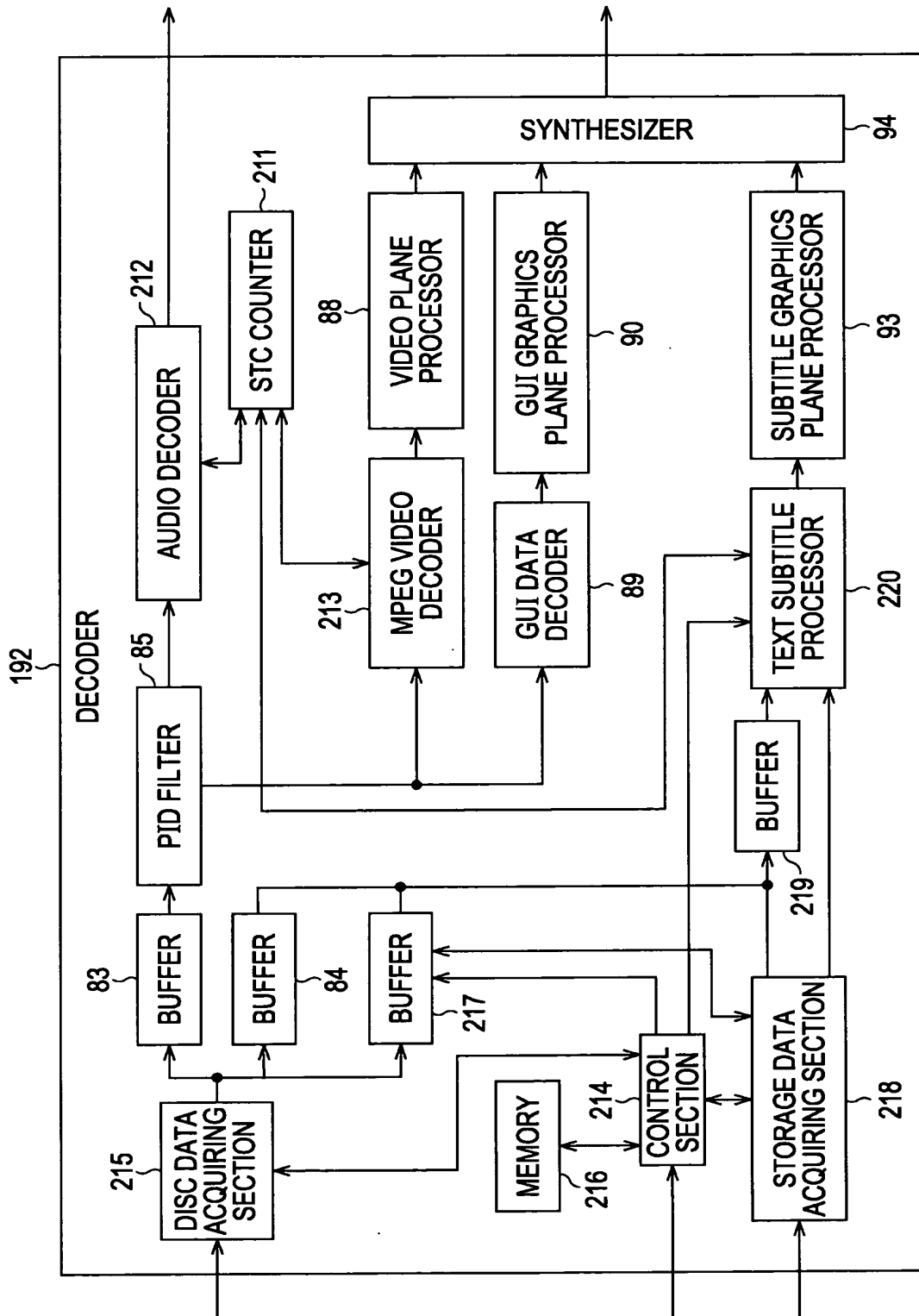
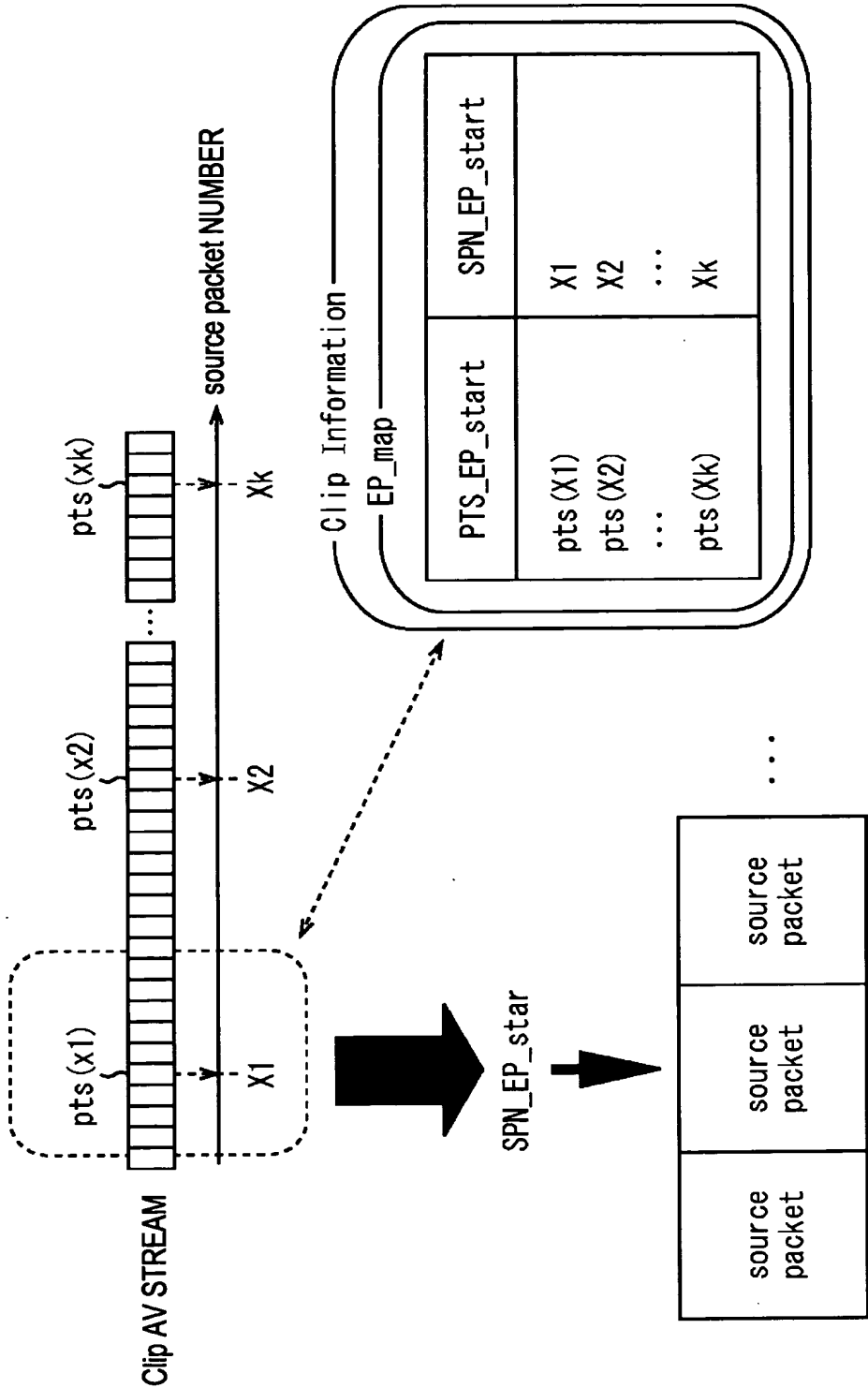
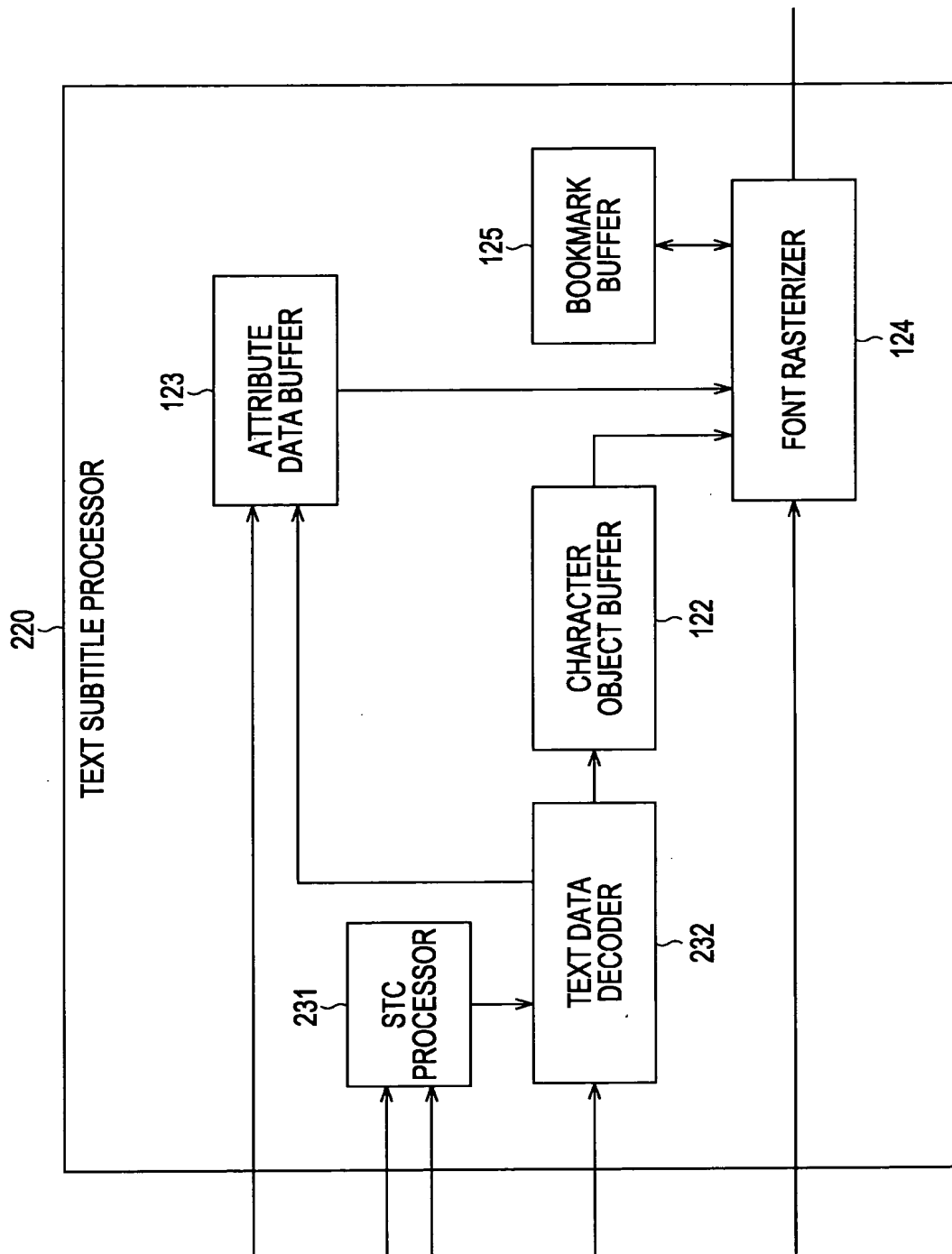


FIG. 64



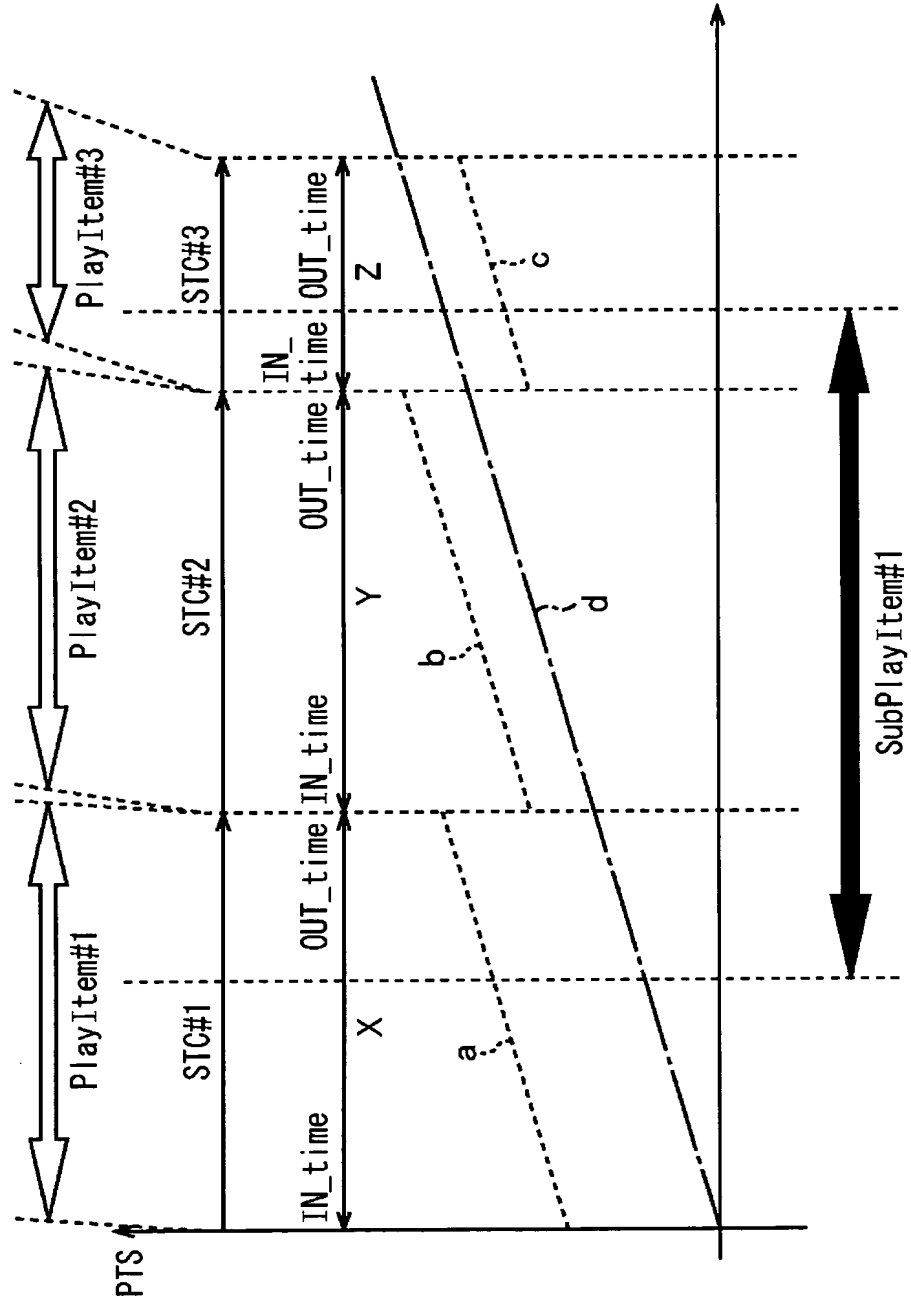
59/70

FIG. 65



60/70

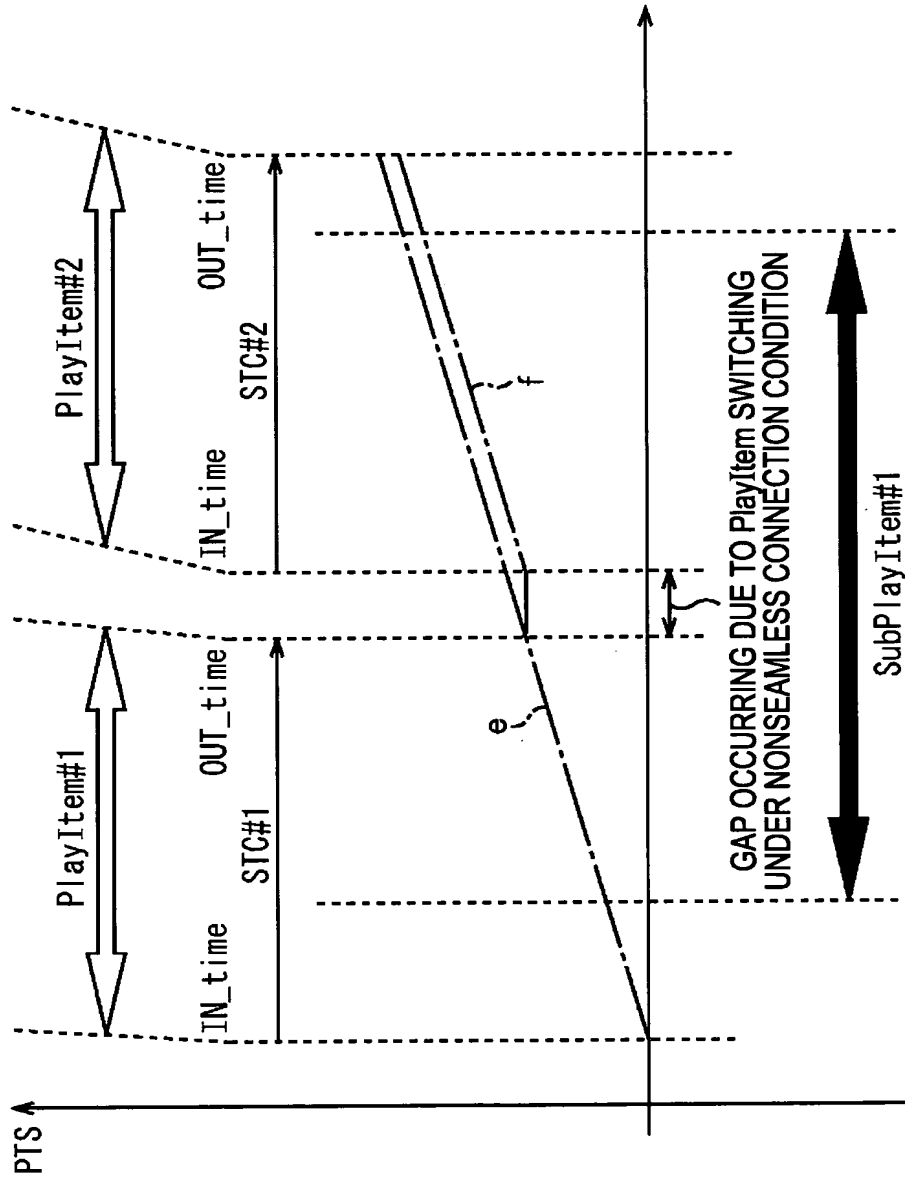
FIG. 66



S05P0180

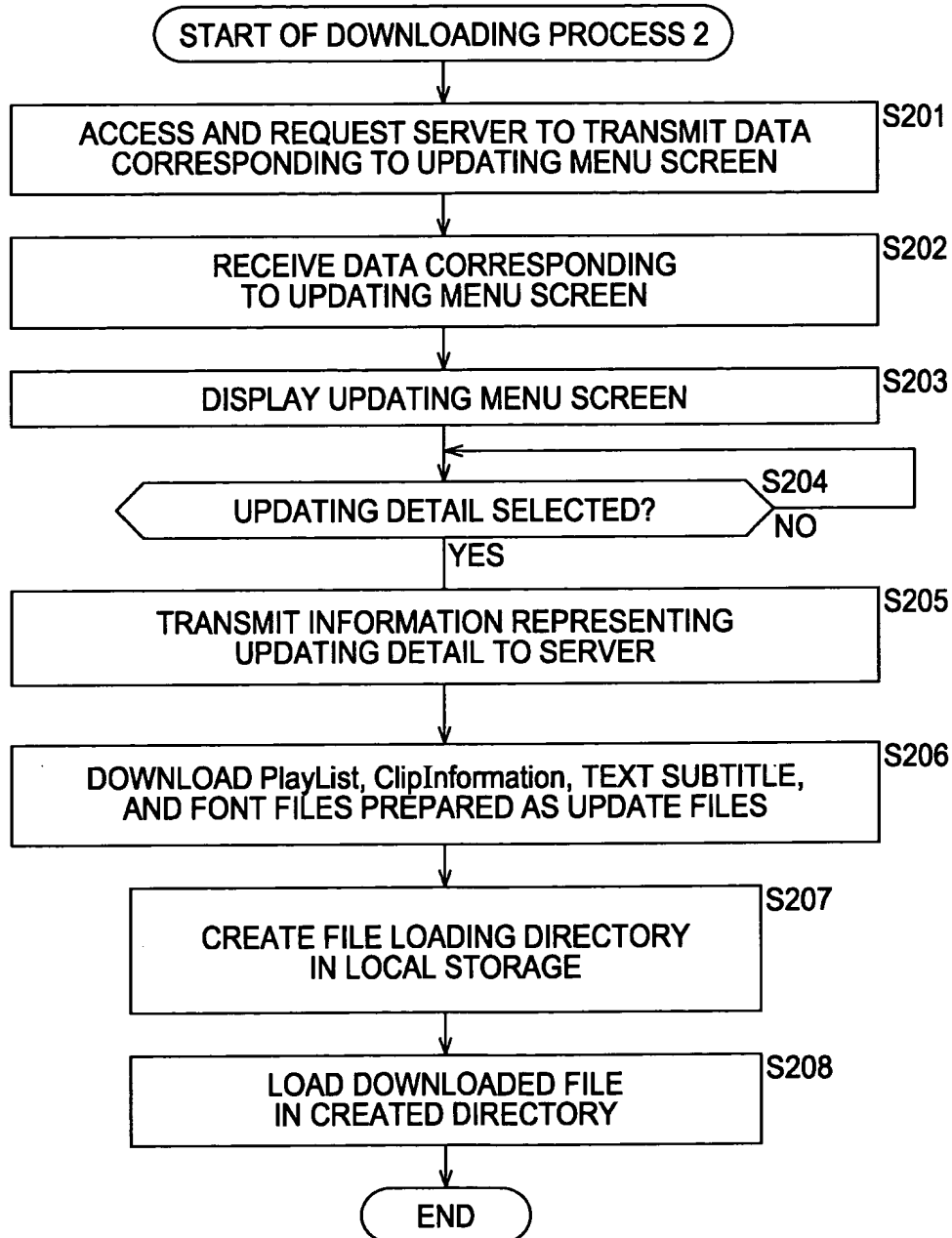
61/70

FIG. 67



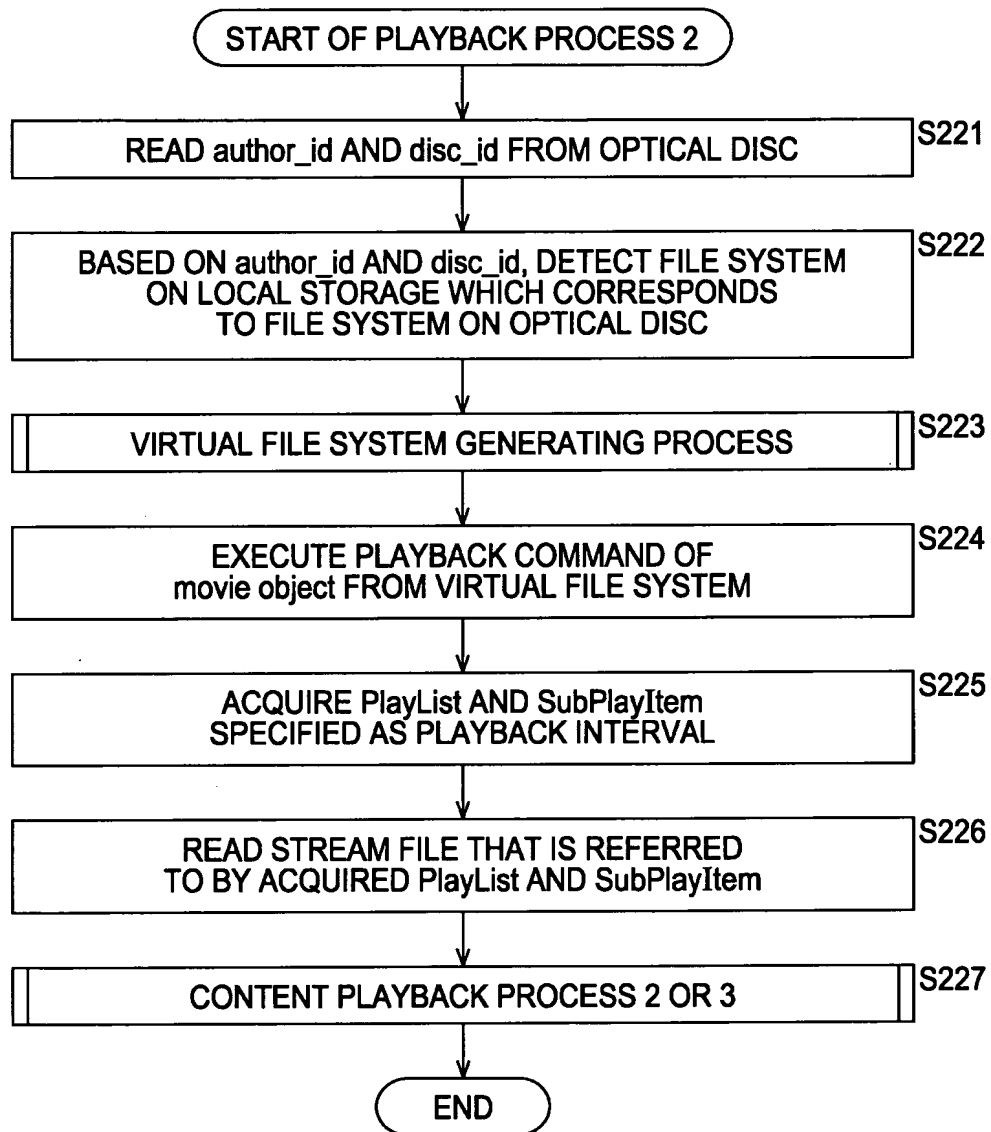
62/70

FIG. 68



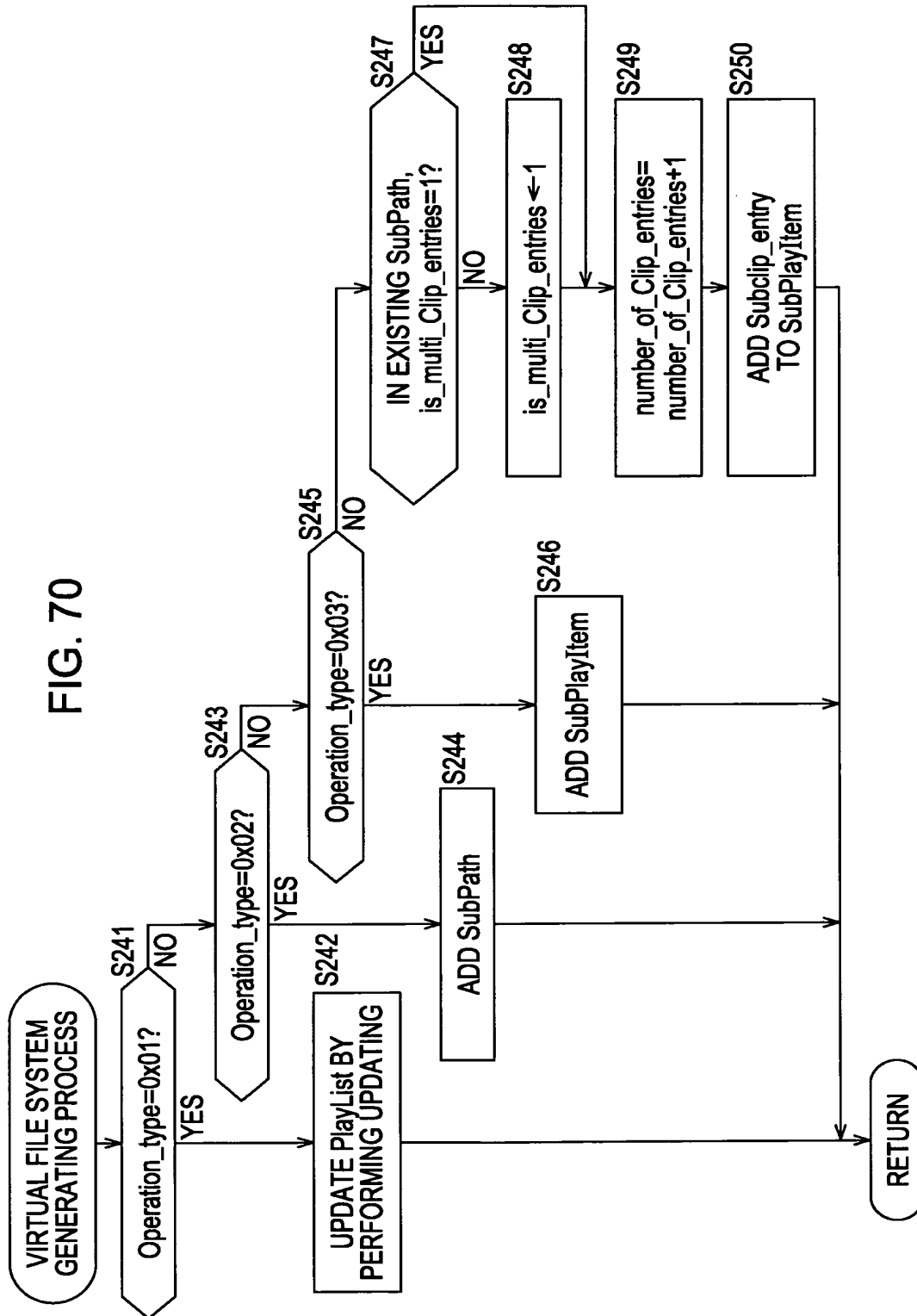
63/70

FIG. 69



64/70

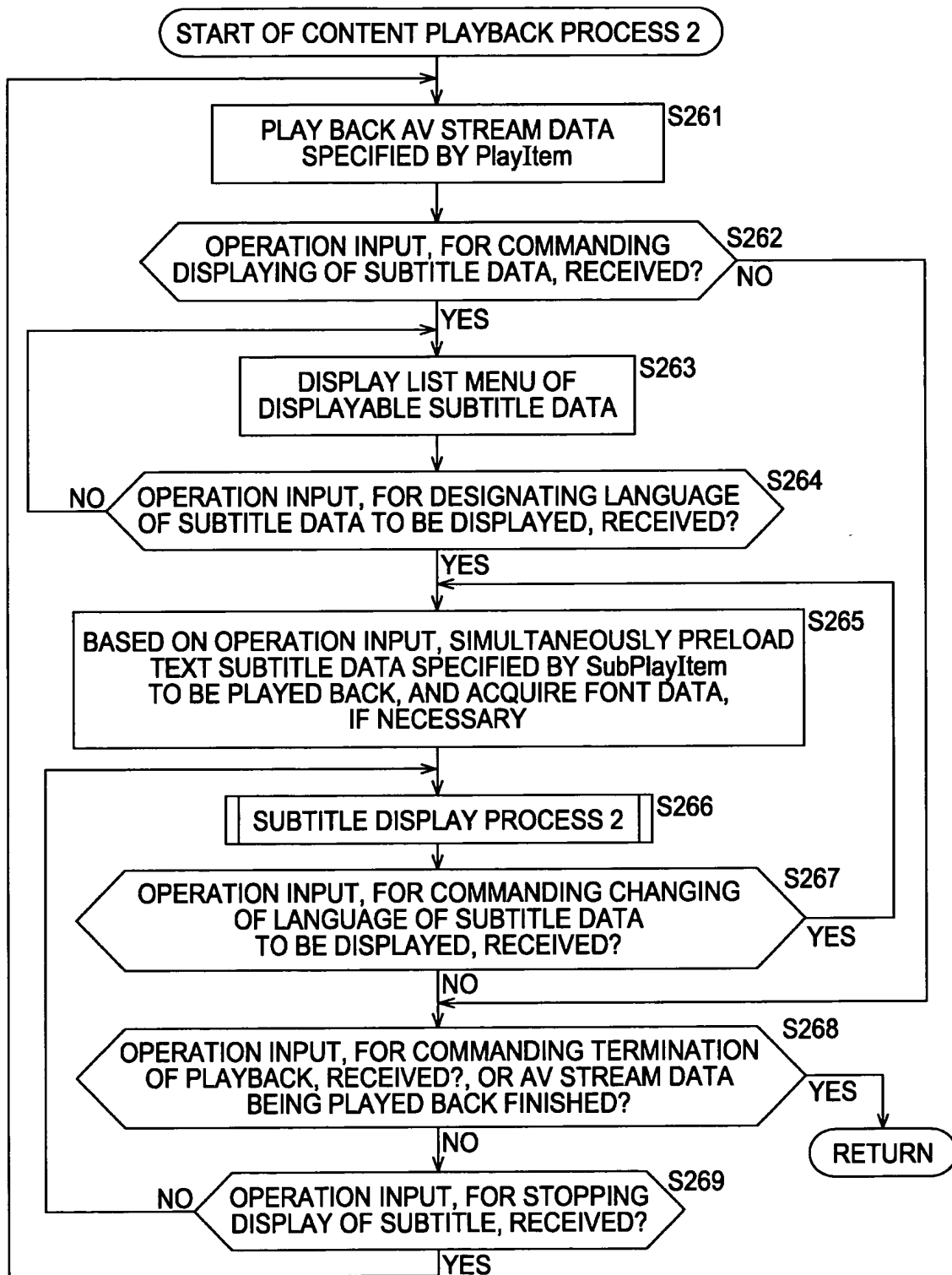
FIG. 70





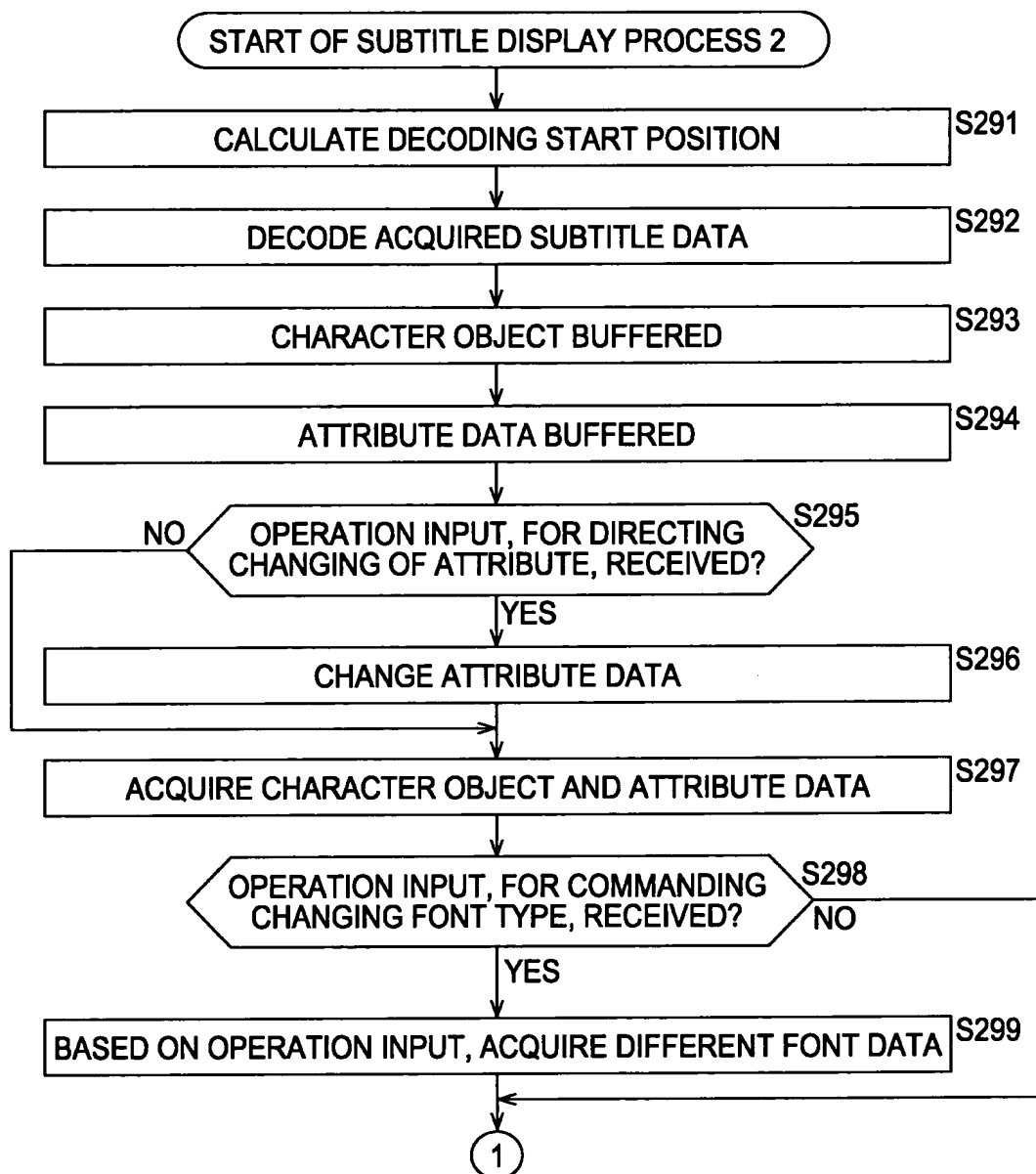
65/70

FIG. 71



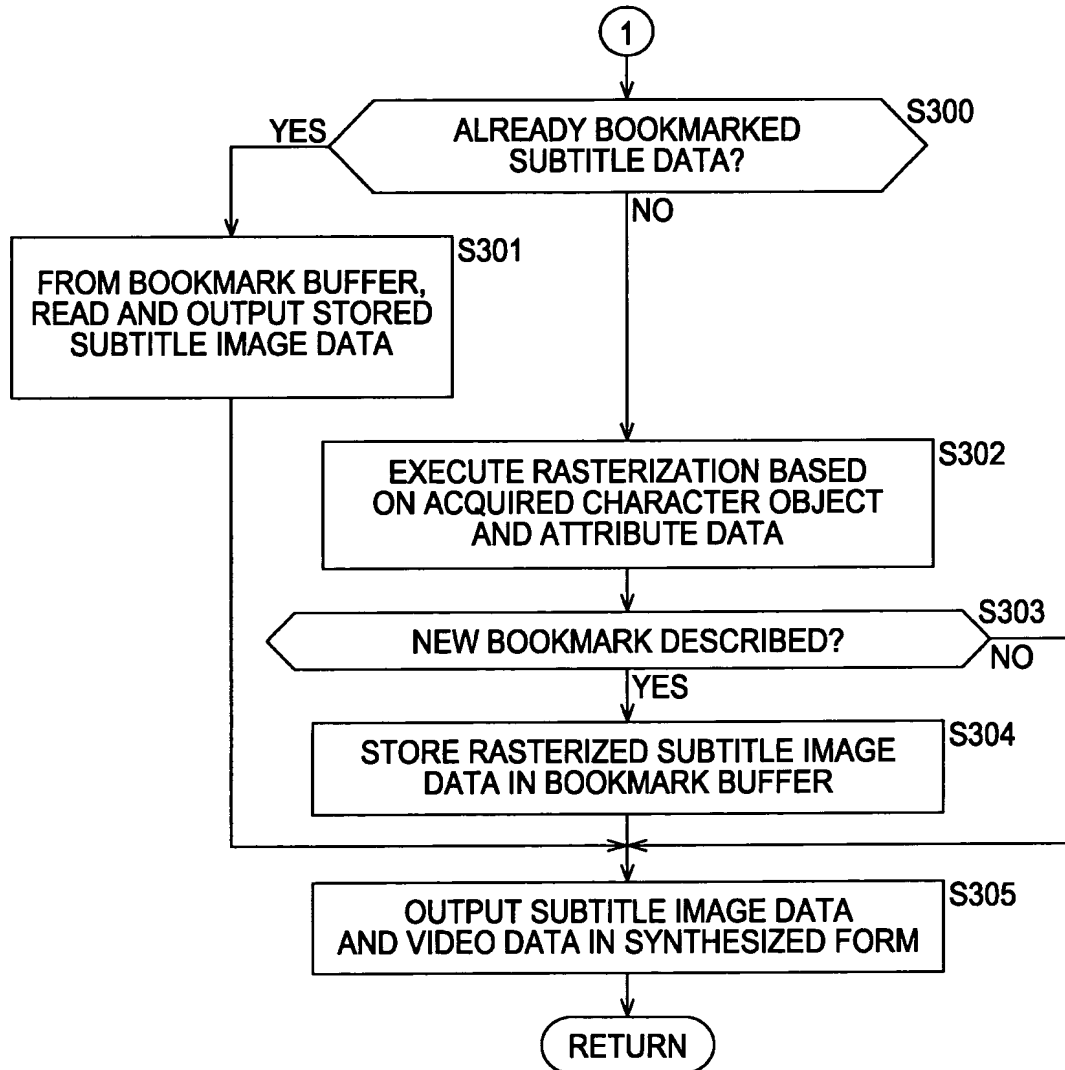
66/70

FIG. 72



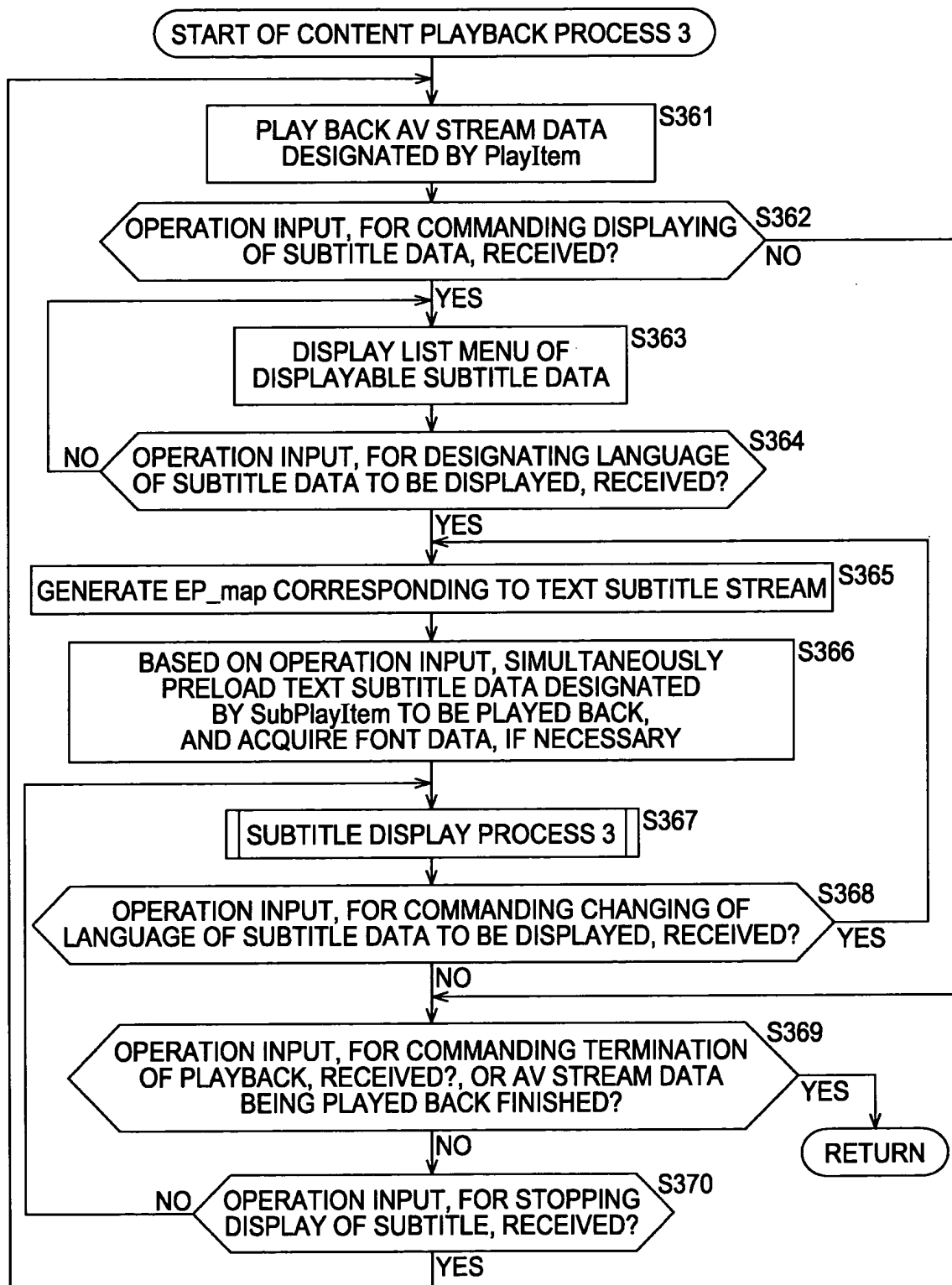
67/70

FIG. 73



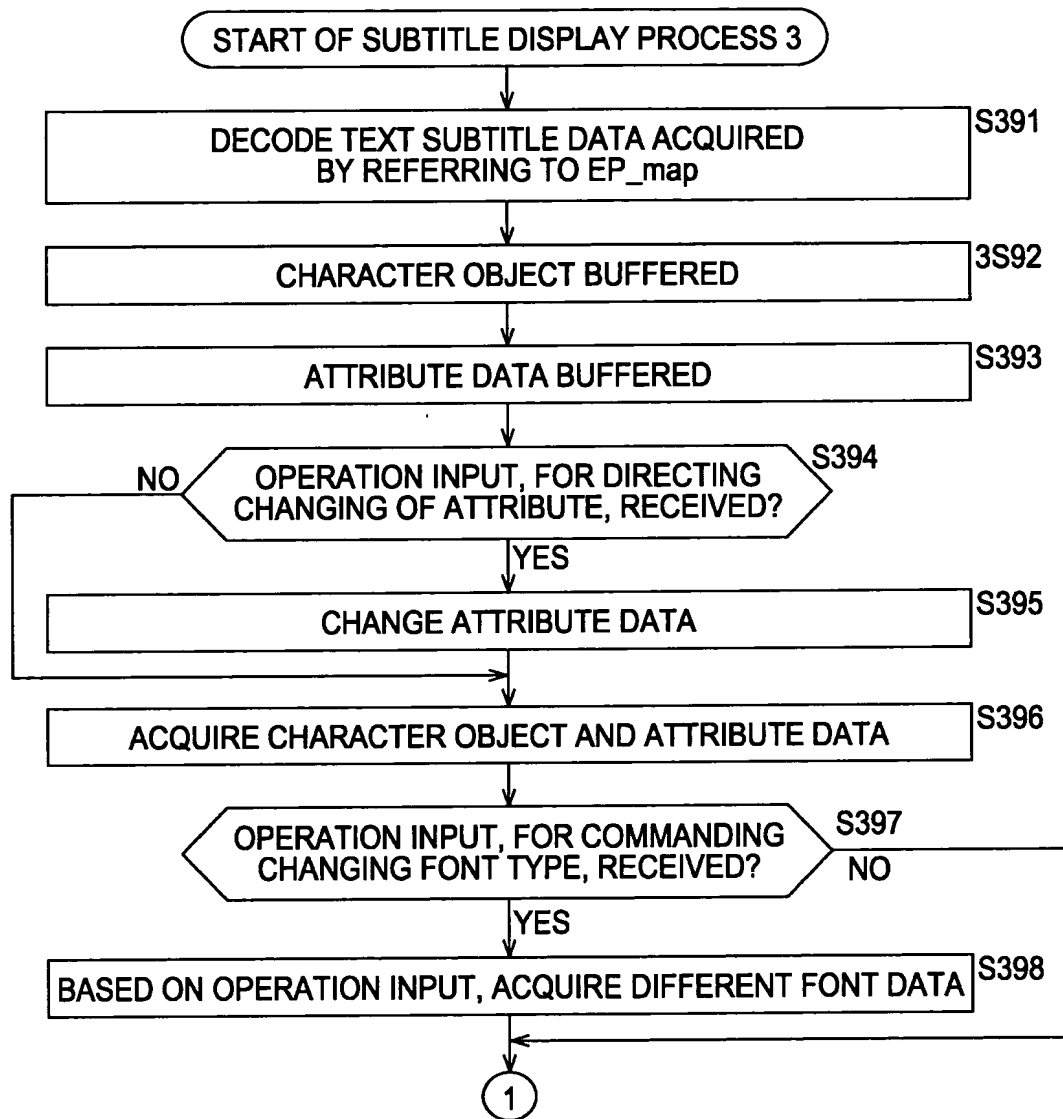
68/70

FIG. 74



69/70

FIG. 75



70/70

FIG. 76

